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EDITORIAL: THE SCIENTIST AS VILLAIN

by Isaac Asimov

art: Frank Kelly Freas

The various sub-classifications of literature each have their characteristic inhabitants. The Western story has its sheriffs, its gamblers, its dance-hall cuties, and its school-marms; but the character who instantly characterizes the story is, of course, the cowboy. The mystery story has, as its indispensable inhabitant, the solver of crimes—whether amateur or professional.

Mind you, it is possible to write a Western in which neither a cowboy nor a horse appears, or a mystery in which no true criminal appears and in which no true solution is found; but these are *tours de force* and not in the mainstream of the genre.

Well then, while it is possible to write a science fiction story in which there is no professional scientist (or engineer, or inventor) it is very common to make a scientist central.

There is, however, a difference. In the vast majority of Westerns, the cowboy (or the sheriff) is the hero in the sense that he brings about a happy resolution of the crisis. In the vast majority of mysteries, the hero is the detective—amateur or professional.

In science fiction stories, however, the scientist is as likely to be a villain as a hero. By a "villain" I mean that the scientist's aims must be defeated to bring about a happy resolution of the crisis.

To be sure, the likelihood of scientist-as-villain varies from author to author. In my own stories, for instance, scientists are very likely to be heroes. Why not? I view technology and science (wisely used—an enormously important condition) as beneficent and as the key to human progress. Why shouldn't the practitioners in the field be heroes, then?

On the other hand, it is certainly possible to view technology and science as a major source of the problems that humanity endures and its practitioners would then be villains. It is a sign of the ambivalence people feel toward science, that scientists are so often villains in science fiction.



Not all scientific villains are the same, however. It is easy to divide them up into categories. For instance:

1) *Presumption*. A scientist may dare the unknown and, perhaps, climb to heights or plumb depths beyond his strength or comprehension. This is a rather old-fashioned notion, if one takes the attitude that "there are some things not meant for man to know" because, presumably, they are reserved for God alone. The prototype of such a villain is, of course, Victor Frankenstein, who dared usurp what was considered the divine prerogative of giving life and who paid dearly in consequence. (Of course, Dr. Frankenstein was not portrayed as possessing a villainous character. He is, actually, a tragic hero; he meant well.)

However, even if we eliminate the religious angle, it is quite conceivable that a scientist or inventor cannot control his discovery—the situation of the sorcerer's apprentice, for instance.

2) *Madness*. This is a natural offshoot of presumption. Why should someone dare too much unless he is mad or, as a variation, would not someone who dared too much be struck mad? The mad scientist may differ from the presuming scientist in that the former does not even mean well.

A common way of handling this is to suppose that a scientist who is too daring arouses intense opposition on the part of his more conservative colleagues. The scientist then grows mad with frustration and rage and is thereafter intent on demonstrating his point in order to show up his enemies, quite regardless of the consequences.

3) *Evil*. A scientist need not be mad in the clinical sense, but might simply be sadistic or take pleasure in doing harm or be intent on using his discoveries to establish his domination over part or all of humanity. Consider Conan Doyle's Moriarty.

4) *Arrogance*. A scientist may be neither mad nor evil and yet be coolly convinced that he knows best. He may refuse to admit the possibility of mistake, and dismiss all opposition as the maunderings of inferior individuals.

5) *Indifference*. Both the evil and the arrogant scientist are often characterized as indifferent to the human qualities of mankind and, indeed, to view them as contemptible weaknesses. Even without evil and arrogance, however, a scientist may simply be viewed as a reasoning machine, untouched by emotion, who finds the pursuit of knowledge the only worthwhile endeavor. Here it is sheer inability to comprehend human values that may lead to catastrophe.

Well, then, I have presented five varieties of villainous scientists,

and undoubtedly some of you can think of more. (If you do, drop us a line. These editorial essays are meant as dialogs, not as lectures.)

An important point that should be made, however, is that not one of these five villain-species is satisfactory in itself.

The presumptuous scientist is an outgrowth of Faust, and is most at home in a world of the supernatural.

The mad scientist is a cliché that went out with the early 1930s.

The evil scientist is embarrassing to sophisticated readers and is now usually found only in comic strips.

The arrogant or the indifferent scientists lack juice. The fact that they eschew human weakness means they lack human interest.

Well, then, does this mean that it is impossible to have scientists as villains? Of course not. If they are one-dimensional, however; if they are nothing but presumptuous or mad or evil or arrogant or indifferent, they are not successful villains and you are very likely to be writing an unsuccessful story.

(Nor does this apply to villains only. Any character who is one-dimensional is a source of literary weakness.)

It helps, in other words, to introduce complexities and thus add dimensions. Heroes should have their flaws, villains their admirable aspects.

It is because Milton's Satan is indomitable in defeat and has an occasional pang of pity that he is interesting, while it is because Milton's God is never permitted to be less than perfect that he is so dull.

Again, Shakespeare's Richard III has courage; Shakespeare's Iago has a sense of humor; Shakespeare's Shylock has pride and will not truckle—and all three are monumentally successful villains.

In science fiction, A. Conan Doyle's Professor Challenger is almost a mad scientist, but *not quite*. Driven to rage by opposition from his inferiors, he behaves so eccentrically that he is considered mad—but presented to the reader, he turns out to have his reasonable and even his humane and gentle moods.

Again, Mr. Spock of "Star Trek" is almost a caricature of the indifferent scientist. He is literally non-human since he is half-Vulcan, and his stock-in-trade is his refusal to show emotion, meeting all crises with super-rational calm. Yet he steals the show. To be sure, calm rationality is admirable; but, by itself, it would rather repel. However, and this is the key, that is not all there is to Spock. The viewers see clearly that he *does* feel emotion; and though he tries to keep it hidden, it is evident that he loves his shipmates and will risk his life for them, even though that might seem irrational.

There is a moral to all this. A science fiction writer (or any writer) in fashioning his villains (or any character) must strive to supply more than one motive that will serve to drive their actions. Furthermore, it must not be predictable, or even always clear, which motive of several possible ones might prevail under a particular set of circumstances.

Why? Because that is the way people behave in real life, and the more closely fictional characters imitate the behavior of real ones, the more we like them and the more effectively they interest and move us.



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ON BOOKS

by Baird Searles

Macrolife by George Zebrowski, Harper & Row, \$12.95.

Electric Forest by Tanith Lee, DAW Books (paper), \$1.75.

Bander Snatch by Kevin O'Donnell, Jr., Bantam Books (paper), \$1.95.

The Merman's Children by Poul Anderson, Berkley/Putnam, \$10.95.

A Wizard in Bedlam by Christopher Stasheff, Doubleday, \$7.95.

Pretender by Piers Anthony and Frances Hall, Borgo Press (paper), \$4.95.

Act of Providence by Joseph Payne Brennan and Donald M. Grant, Donald M. Grant Publisher, \$10.00.

The 1980 Tolkien Calendar, Ballantine, \$5.95.

A Reader's Guide to Science Fiction by Baird Searles, Martin Last, Beth Meacham and Michael Franklin, Avon (paper), \$2.95.

George Zebrowski has tackled an enormous theme in his new novel. That he hasn't quite brought it off is sad but not surprising; it is a *very* big theme, as indicated by its title, *Macrolife*.

"Macrolife" as an idea is one of those science fictional concepts being tossed about so freely by the intellectual/academic community these days (most of which, it might be noted, would have died of embarrassment 20 years ago had a volume of SF been discovered in their libraries). Basically, it seems nothing more than a term giving the imprimatur of validity by the scientific community to the not-very-new idea of mankind spreading to the stars, admittedly backed by some intriguing *modi operandi*. Foremost of these is one on which Zebrowski concentrates, that of space as habitat, accomplished by the use of artificial worlds either built from scratch or created from hollowed-out asteroids.

These worlds would be self-sufficient, due to incredibly efficient use of energy and other (optimistic) scientific breakthroughs. Therefore, natural planets might only be stopping-off places, oases in the deserts of space for nomadic future mankind.

There are, of course, endless philosophical and social ramifications to all this. It is these that Zebrowski so bravely confronts in *Macrolife*.

The novel is in three parts: the first takes place in 2021, the second in 3000, the third towards the end of the Universe.

Part one deals with the disaster that initiates mankind's genesis

into macrolife. It seems that almost everything in the 21st century is made of bulerite, an invincibly strong metal, in use for some years. Unfortunately it turns out to be unstable; it degenerates, buckles, and generally goes to pieces after a certain amount of time; so, then, do most of the cities of Earth, the settlements on the Moon, and the Earth itself, due to a bulerite tap into the volcanic core. Ah, but luckily the first settlement in space, called Asterome, didn't use much bulerite; and after some redesigning, Asterome is off to be the sperm of macroliving humanity.

In part two, Asterome has reproduced others like itself and also been responsible for colonies on hospitable planets. The protagonist of this section is a clone of one of the characters in part one, therefore a bit retarded by his community's standards. He spends some time dirtside in a colony that has regressed to the primitive, attracted by a native female. (I'm sorry; I was irresistibly reminded of the traveling salesman and the farmer's daughter.) This inevitably ends badly and he matures into macrolivelthood.

In part three, he is again individually resurrected and is of aid to the ultimate macrolife, composed of many species, in making it through the end of this Universe and on to the beginning of the next.

As I said, this ambitious scenario doesn't quite come off. This is for several reasons. To pick one nit (but an important one), bulerite seems an extremely arbitrary invention considering the *verismo* Zebrowski brings to much of the scientific matter in the novel. The characters, for the most part, suffer from the classic SF problem of being spokespersons for expositions, explanations, and philosophies. And they certainly do speak. There are what seem to be interminable pages of discussions and writings by the novel's personnel, which told me more than I wanted to know about macrolife and seriously got in the way of the story.

Despite all this, though, *Macrolife* is a praiseworthy attempt at an epic theme, and has more than a few intriguing moments and concepts.

To go to the other extreme, the prolific Tanith Lee's new novel, *Electric Forest*, is anything but epic. It comes close to having only a cast of two—well, two and a half if you count a spectacular late entrance by another character who is a duplicate of one of the first two—with a couple of minor walk-ons and a small crowd scene here and there.

It takes place on the planet Indigo, where Magdala Cled is one

of the rare deformed persons in a healthy, handsome population. She is, as you may guess, not happy. Suddenly she is all but kidnapped by a devastatingly handsome electronic genius, and her mind is placed in an artificial body of ravishing beauty. But why, and what does she have to do for this ultimate remodelling job? Things get more obscure before they get clearer; there are levels and levels here, and since *Electric Forest* has elements of espionage-thriller and murder mystery, I can say no more. But it's good fun, though not up to the high level Lee set for herself with her *Don't Bite the Sun* duo of novels.

Bander Snatch is a first novel by Kevin O'Donnell, Jr., and a creditable job it is, too. The elements are familiar, but O'Donnell has the knack for the myriad inventive details that make a created environment real—in this case, *two* created environments.

One is "The Jungle," an urban slum of terrifying ferocity in the 22nd century. Bander Snatch, the hero, is a "Jungle Lord," a gang leader. The other is a real jungle on the planet Arkslsnagl (nomenclature is *not* one of the author's talents; he tends toward the jocular or the unpronounceable) where almost every living thing is telepathic. Bander Snatch is dumped here because the by-now ramshackle U.S. government has discovered him to be a latent telepath. It knows nothing about developing this talent, but figures if he can survive long enough on Arkslsnagl to find a homing beacon, the talent will surface as a survival instinct.

The novel ends up being a sort of cross between *A Clockwork Orange* and *Tarzan* (to which that "Jungle Lord" reference is a sly nod); neatly done, and a most promising novelistic debut.

I have mixed feelings about the science fiction of Poul Anderson (which, I admit, seems a minority viewpoint), but no doubts whatsoever about his wonderful fantasies. *Broken Sword*, the earliest, is one of the two or three finest American fantasies ever written and the others, far too few in number, are nearly as good.

Now there is a new Anderson fantasy, an excuse for dancing in the streets and general rejoicing. This one is called *The Merman's Children*; portions have appeared in various numbers of the *Flashing Swords* anthologies. It takes place in the 14th century and begins with the exorcism of the last community of merpeople left in Danish waters. This was brought about by the taking by the mer-king of a mortal lover, who has borne him four children.

The eldest is nearly full grown when the exorcism destroys the

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underwater city. The merfolk flee, but the halfling siblings must stay to see their youngest sister safe with their mother's people. The story alternates between the odyssey of their father and his people, and the search of the three remaining halflings through the seas for them; it ranges from Greenland to the Dalmation coast of the Adriatic. And as in *Broken Sword*, Anderson plays wonderfully with cross-cultural mythologies. We meet a kraken, a Scottish selkie, a Balkan vilja, and a wonderful Inuit (Greenland Eskimo) shaman. To Anderson, all the creatures of Faerie mix and mingle as do the varieties of mankind.

There is also, as in the earlier book, an underlying and ongoing sense of tragedy. This is resolved on the plot level in a curious way I won't reveal, but it permeates the work on another level in the sense that all of Faerie is doomed; all these glamorous, beautiful and soulless folk are literally not long for this world.

Please, Mr. Anderson, more of your chronicles of Faerie.

Christopher Stasheff has quite a following on the strength of only two novels, *The Warlock in Spite of Himself* and its sequel, *King Kobold*. Not having read those, I must confess to being a bit baffled by this on the strength of his latest work, *A Wizard in Bedlam*.

It's a pretty standard tale of a planetary revolution (the war type, not the whirl type); the planet is Melange with a culture based on 18th century France; and while the rulers are pretty insufferable, it seems almost a pastoral Utopia compared to some of the more gruesome totalitarian states we've run into lately. The revolting masses are the churls, all descended from twelve servants brought along at the planet's initial colonization, each one of whom had been multiply cloned.

The hero is Dirk Dulaine, a churl smuggled off-planet at a young age. He returns to set the revolution in motion, which he does with the aid of a 500-years-dead revolutionary whose personality imprint has been electronically preserved in his staff, kept all this time by the superstitious churls.

It all bounces along fast and furiously, but without much depth or invention. And Stasheff's writing style suffers from periodic attacks of the cutes, such as "Dirk bit down on his courage, narrowly missing his tongue . . ." which doesn't help matters.

Setting a work of science fiction or fantasy in the past is a tricky business, because the author must have something of a talent for an entirely different genre, that of historical fiction. L. Sprague de

Camp and Poul Anderson (see above), both possessors of vast historical knowledge, have probably been most successful at this. Piers Anthony and Frances Hall, the authors of *Pretender*, aren't up to that high standard, but it's a nicely original idea.

The spaceship of an intelligent alien breaks down near Earth some 3000 years ago. It knows there is a secret base of its fellows on Earth and must find it, but it is an incorporeal intelligence that needs an animal "host." It fastens on Enkidu, a local youth, and ends up in Babylon on the eve of its conquest by Cyrus the Persian. Enkidu thinks he is looking for the shrine of Aten, a minor god, and gets involved with Tamar, a prostitute of Ishtar, and other Babylonian phenomena. The alien, NK-2, knows he is looking for station A-10, and is being foiled by an enemy entity, TM-R.

Talk about cute, now that you mention it . . . but it gets an A for inventiveness.

Donald M. Grant, publisher *extraordinaire* of fine collectors' editions, has now given us *Act of Providence* by himself and Joseph Payne Brennan. It is a short work, an adventure of Mr. Brennan's character Lucius Leffing, "consulting detective and psychic investigator," at The First World Fantasy Convention held in 1975 in Providence RI. The supporting cast in the crowd scenes include a great many people well-known in the genre, including Frank Belknap Long, Fritz Leiber, and one George Scithers.

That first Fantasy Convention was, in effect, an homage to H. P. Lovecraft, as is this encounter of Mr. Leffing's with horrific remnants of the past.

As is every volume from Grant's press, *Act of Providence* is a really handsome book, with excellent illustrations by Robert Arrington. One wishes, somehow, that this quality of craftsmanship could be applied to something a little more substantial.

As I write this, the hot weather is just setting in and the idea of coping with a 1980 calendar just about brings on an attack of the vapors. But by the time this sees print, it will be all too timely, so let me just mention the 1980 Tolkien Calendar. This edition uses a mixed bag of artists, most of whose work is predictably just not quite as we picture it (it being whatever scene from *The Lord of the Rings* that they're illustrating) without being really awful.

One that deserves mention, however, for being absolutely horrendous is a "Death of Boromir" that looks like a grotesque *pieta* with Aragorn as the Virgin Mary. The artist shall remain nameless.

On the other side of the coin, there are two paintings that have captured every Tolkien fan I have shown the folio to, and which make the calendar worth having for themselves alone. One is an "Aragorn and Arwen" which is radically different in style from any other Tolkien illustration I've seen, done in a hazy, almost Impressionist manner that is enchanting. It is by George Zeil. The other is a glorious "The Eagles Are Coming" that gives me chills to look at. It is by, wouldn't you know, Michael Whelan. Can he do no wrong?

A final note . . . just published is *A Reader's Guide to Science Fiction* by Martin Last, Beth Meacham, Michael Franklin, and the author of this column.



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MANDALAY

by John M. Ford

art: Val Lakey



VAL LAKEY

The author comments that he writes because characters and situations follow him around, nagging like relatives or tax collectors; and they won't shut up until they're written about. The premise for "Mandalay" announced itself while he was crossing a street one afternoon, and a bread truck nearly ran him down. Every now and then, he reports, when thinking about a story, he has a sort of waking-dream; from his point of view, he can see the characters and setting as clearly as actors on a stage. From anyone else's, he appears to be asleep with his eyes open. Whether this is a useful eccentricity or irritating quirk depends on whether the story sells or not.

"On the road to Mandalay,
Where the flyin' fishes play,
And the dawn comes up like thunder
Outer China 'crost the bay!"

They sang as they marched single file up the tube, an odd and ragged bunch that now numbered twenty-two but would likely gain or lose after the next hatch—or if not that, the next hatch—or the one after that. . . .

Or maybe the next hatch would be Homeline.

But probably it would not.

Some wore serapes and wide-brimmed leather hats, boots with clinking brass spurs, tooled leather belts with Swiss SIG automatic pistols tucked in butt-forward. Some wore skintight leotards in brightly colored patterns, masks and cowls discarded for pith helmets or miners' hardhats, the climbing ropes on the utility belts replaced by Dewar flasks of hot coffee. The American paratroops in dusty green tunics wore aluminum German helmets; the Wehrmacht tankers had traded their too-bulky, temperamental machine gun many hatches back for jewel-hilted sabers and explosive rounds for their Walther pistols.

One man wore chain mail and a shiny-visored Confederate kepi; his nasaled Norman helmet was in his pack along with the nun-



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chaku sticks and microfilm reader.

The packs at least were uniform, save for color—they were Alternities Corporation special-make, the fabric punch- and rip-proof, the frame of a nearly indestructible alloy. So the packs, when they found them a hundred and forty hatches down the tube, they kept. Likewise the Orion Spaceforce sheath knives, with their one-molecule edges that did not stop cutting at bone or soft metal, and the NEMSEC boots, that were steel-shanked but ventilated and massaged the foot while walking. Unlike costumes or weapons, some things were not a matter of individual taste but rather absolutes.

Just like Homeline would be an absolute, when they found it. If they did.

"We have walked a million miles of tube and never seen the sun;

We have cracked ten thousand hatches and we've never found the one;

We've sung ninety million verses of this stupid boring pome, And we'd sell our souls to Satan if he'd let us die at home!

Up the tube to Mandalay—"

Stripped to bare walls, the tube would have been hexagonal with rounded corners, the walls vertical, pointed on ceiling and floor. It would have been two meters right wall to left, the top angle making extra headroom under the soft white lightstrip, and with a plastic-finished metal grid laid over the point on the bottom.

But it was not bare. The shallow triangle between the walking tread and the lowermost point was full of tubing, square and round, hot and sweating cold, open channels that took wastes away. On the walls were more conduits, bulges and blisters, cylinders and boxes, most blank and the same pale blue as the walls, some bearing symbols or lights or just of a different color. A few of those markings even meant something to the group, knowledge earned by trial and error. White boxes (for instance) were medical supplies. White cylinders were food. Those they opened and half-emptied—never more than half, by Charlie Brunner's order.

Medicine and food they had discovered by trial. Error found things like the purple hexagon full of actinic light that burned the opener's eyes out of his head. He had seen something in the

last instant, they knew that from his screaming, but he would not tell even Brunner in private what it was. The blind man stayed behind at the next hatch they cracked, though the line's dominant life were sad speckled lizards who mournfully doubted they could keep the human alive. "But he despairs," they said, "and may stay."

They closed the hatch quickly on that line, not for the first time with no regrets. Some of the group swore the stars there had been fewer each night, as if dying out. And they marched on up the tube, single file.

The tube was close, but not oppressive. The air was cool, an even 12° Celsius, and always fresh. It smelled faintly of pine and mountain water, though some members of the group thought that the scent was just a lubricant or sealer and some were strangers to pines and mountain streams.

Close, still, enough so that carts or vehicles were impossible. Once they met a man who claimed he could build a sort of railroad to run in the gutters of the tread. It would have had wheels like sprockets. He said that the (capital-O) Operators of the Alternities system had used just such a train.

"The power," Charlie Brunner asked him, "how to power it," because steam or diesel would have choked them and electricity couldn't always be found on the lines.

The man turned dark and said, "As the Operators had, so I have trains under me, and I say 'go' and one goeth, and 'do' and one doeth it," and the party moved on in a foul brown fit of frustration and anger. Gunther Niemoller alone laughed for five miles.

Bicycles had looked promising (anything would have, after that) but proved hopeless after the first fifty bent wheels. They'd tried them all and were still walking.

But things were not *too* close. They *were* still walking. Even with the endless upward curve that made the tube uphill in both directions (impossible, but no more so than a hundred-klick walk to a distant planet. No more so than Alternities Corporation had been, twisting space and time to please the idle in its mountain in Colorado); the loneliness (though they always left half the food and medicine, they had never met or even heard more than legends of another wandering party); the unending march of a hundred kilometers from hatch to hatch, from world line to line, from planet to planet, pass forty and call it a "year"—

Not quite too much to bear. Just like the dozens, scores, hundreds of hatches that opened *not quite* onto Earth, the Homeline,

but were close enough that one made excuses to the subconscious . . . until Charlie Brunner turned his Key and went on up the tube. Even then some would usually stay behind, announcing their choice in loud and uncertain voices. Just as some new people would go on, joining the long march out of the knotting of worldlines they called the Fracture, looking up the tube toward Homeline.

Just as some looked back.

"A trap," somebody said once, "is something that's hard to get out of but easy to enter. If it was hard to get in, it wouldn't be a trap—save for fools."

The final sentiment is questionable, but the spirit of the quote rings true; and pre-Fracture Alternities was easy enough to enter. You dressed in your period clothes, down under Ouray's mountain, and were ushered through a round metal door into a comfortably lit and carpeted cylinder. From overhead in the circular, glassed-in gallery they called the Widow's Walk, Alternities technicians watched and mumbled technical talk and did things with buttons and knobs. Then, inside your cylinder, there was a hum, for rare people a stomach-dropping sensation, and the other end of the cylinder slid open on your chosen line.

You came back the same way, until the Fracture, until the trap sprung. Then, the gates did crazy things, the least dangerous being nothing at all while a dragon or the Chinese Army was chasing you. But the gates couldn't be scouted for valor, money, or love, and all through time (forward, back, and sidewise) people have stepped off into the darkness, just hoping that home lay somewhere out there. Sometimes they have even gotten lucky and found it.

After a time, the gates ceased to do anything at all, and it was impossible to get lost in the dark, but it was also impossible to get lucky.

Sometimes, though, if you stayed within news-reach of the gate, it would unseal in a strange doughnut-fashion, and Charlie Brunner and his party would appear to take you away.

There are a great many kinds of luck, and "good" and "bad" are only two of them.

"Up the tube to Mandalay,
On the straight and narrow way,
We could die contented after
Seeing Homeline for a day!

On the road to Mandalay,
Where the flyin' fishes play,
And the dawn comes up like thunder
Outer China 'crost the bay!"

There was a pause after the verse ended. Up and down the file they waited for Brunner at the point to start a new one, but nothing came. Ten minutes passed with the only sounds the click of boots on tread, the chink of spurs and mail, and the hum and rush that always filled the tube.

Then one set of footsteps became distinct, as if the marcher were counting time. No one needed to look up to see that it was Niemoller. Some people sighed, the ones forward looked for reaction from Charlie Brunner (they got none), and those who currently chose to march near Niemoller matched their step to his and waited for the song.

*"Auf der Heide blüht ein kleines Blumelein,
Und das heisst . . . Erika!
Von der hunderttausend kleinen Bienelein,
Wird umschwärmt . . . Erika!"*

Half the group was singing now; all the center, some in the back, none forward with Brunner.

"Weil ihr Herz ist voller Süssigkeit—"

—but one by one they all defected to the music, all but Charlie Brunner in the lead.

The lyrics were deceptive. Behind the words about the lovely flower of the fields was a hard marching beat, with pauses after each line for the double ring of boots left-right. And she is called—stomp, stomp!—Erika! More beautiful than the hundred thousand—right, left!—Erika!

At the head of the line, Charlie Brunner's helmet was on, his dark visor down, his shoulder muscles hidden by his tan pack and ballistic tunic. God only knew what he was thinking. His step was measured, and carefully out of rhythm with the twenty-one pairs of banging boots behind him. His holster was sealed and stayed so.

Niemoller finished the song. The timestep tore apart into noisy shuffling. Some people turned, saw Niemoller's eyes steady and

blue under his black beret. He pivoted his head to give the view to those behind—especially to Jones.

Deke Jones walked just behind Gunther Niemoller. He wore the same black beret, the same gray-green German uniform. Jones's insignia said he outranked Niemoller—he was a tank commander, Niemoller only a driver—but the costumes lied, like most of the costumes lied. Jones was a taxi driver before his Alternities Corporation vacation, before the Fracture. Until the Fracture he was an Alternities guest, living out his private fantasies by killing other Americans from an armed and armored vehicle.

Niemoller was Alternities staff. He drove the tourists in their tanks for a living, through the synthetic WarTwo of the Transalpine Front 1944. Alternities had hired him from what remained of the Bundeswehr after WarFive, where and when he had commanded tanks firing live munitions at live enemies. Unfortunately for him and his, WarFive had been shorter and more decisive than WarTwo, and though the allegiances were different, the end for Germany was pretty much the same.

It was a hell of a War while it lasted, though. Niemoller's Panzer Assault Badge showed only fifty engagements, against Jones's one hundred; but Niemoller's was real.

The real *Panzerführer* waited for a word from Charlie Brunner, for a tilt of the head, a twitch of the right fingers. Nothing happened. Niemoller started the Verse.

"Fifty times I've thought I'm home, but Charlie Brunner
says I'm not;

What the Hell does he remember? What's he have I haven't
got?

If I find the world I came from, how will I be sure it's mine?
I'll have left one just as good a hundred hatches down the
line!"

Eighteen voices sang, nineteen on the chorus:

"Is the marching worth the cost?
How much space is still uncrossed?
How can we pick up our lives again
Not knowing where they're lost?"

And then, a voice from the point, a baritone hard and rough
like rusty iron:

"On the road to Mandalay,
Where the flyin' fishes play,
And the dawn comes up like thunder
Outer China 'crost the bay!"

The words came down like a portcullis falling closed, as if old Brother Kipling himself had said "That's enough, Tommy Atkins—my words weren't meant that way and you know it!" No more songs followed. Niemoller's face was tilted down, unreadable. Jones had an expression on his fat face close to panic. Brunner kept on walking, stride unbroken, up front where no one could turn and face him.

Brunner alone of them carried no mismatched equipment. Even his pack was the same shade as his light brown tunic. His trousers were dark brown, with a gold cavalry-trooper stripe. He had a white officer's helmet, still spotless though its stenciled identity number was flaking, with a polarized visor he wore down and darkened much of the time.

Uniform, helmet, boots and wand and belt were all Alternities make and issue. Before the Fracture, Charlie Brunner had been NEMSEC, Noncostumed Emergency Security, an officer. He gave his rank only as "Five." Niemoller would grunt and fall silent when he heard that—and give his rank only in Wehrmacht terms—but the five other NEMSECs they had met in the last two hundred hatches treated Brunner like a general or maybe a God King.

His boots were the exquisite NEMSEC boots that he had gotten for the rest of them from rare storage lockers and from, yes, the dead.

The wand on his hip a) could drop anything living cold in its tracks and b) never harmed permanently what it hit and c) never ran out of charge or ammo or whatever it fired. There was a d), as someone learned to his mutinous regret many hatches ago; only Brunner's hand could operate the thing. "I work for clever people," Brunner said when he retrieved the weapon.

His metal-mesh belt was full of clever gadgets; air and water samplers, marking pens, a roll of very tough wire, a Gigli bone saw that he never confused with the wire. The cleverest of all was the Key, that cracked the hatches from inside the tube and found and opened them from outside on the lines.

The Key kept Charlie Brunner alive, occasionally, because after the incident of the stunwand no one trusted his right hand to

work the Key, and they knew no force of hands could crack a hatch from inside or find one from outside, let alone open it. Clever people he worked for.

But not clever enough to prevent the Fracture, when Augustan Romans had tumbled into the waters of the Spanish Main and bandannaed urban guerillas shot the hell out of the Sun King's palace at Versailles. Not clever enough to point the way to Homeline, except as a hundred-kilometer march from line to line through a hexagonal sewer in Space.

Brunner's head came up, and the others repeated the action down the file like a centipede cracking its spine, one by one the light coming into their eyes: the bright blue light of a hatch marker.

They did not speed up. The hatch should have been there, after all, and they'd cracked *how* many hundred, after all.

But after all, it might be Homeline this time. It just might.

Packs slid from shoulders, to be tucked carefully into niches among the cables. Soft hats were changed for helmets—except for a few who had none, and Niemoller, who wore his beret like the invincible Golden Helmet of Mambrino. Weapons came out, blades whispering, curved smiles of light, bullets chambering with subtle and reassuring clicks, nunchakus clunking and nerveguns beeping charged.

Laura Sand touched her hips and her wrists and was armed. She had been a superheroine in black tights and a cape, before the Fracture. She could not fly now, and the flashy but awkward cape was in her pack, protection against rain on lines where it rained; but the thinpack batteries in her costume kept charged somehow. Metal disks on short wires dropped into her palms.

Charlie Brunner had the Key, a dull metal oblong, in his hand. He pulled out the three antennas, at mutual right angles, waited for a green light from the box. It lit shortly.

"Sand. Kim," he said, "up here," and they moved up from their places, not easily or comfortably. Sand bumped Jones and Niemoller both, earning a frightened glance and a frightening grin. Sun Ho Kim clipped Peter Curdie, a pirate in red leather and white linen, behind the gold-ringed ear with the muzzle of his Walker .44. He felt a dagger poke him back.

"Move," Brunner said, not loudly. They moved.

Kim took the left side of the six-foot circular hatch, Sand the right. Brunner tossed Sand a metal tube from his belt, then moved a few steps up, waving the Key as he went. The thing

seemed to have a critical range that varied with each hatch—another reason no one coveted it.

"Ready. Steady. Go," and his thumb came down lightly. A thin ring of light appeared all around the hatch.

"No hiss," Sand said. She held the tube near the crack. "No change. Normal atmosphere." She handed the tester back. They had never found unbreathable air, though sometimes it was heavy with lilacs or sulfur or worse smells. There had been lines in the Alternities system that had been high vacuum, and ammonia-methane planets at superJovian pressures; some had vacationed or worked on them. But the tube did not seem to connect to such places.

"But one might," Brunner had said. "And it would only have to be once." He was right, of course; thus the cracking ritual. How much of even the known parts of Alternities had they seen, after all? The poem notwithstanding, they did see the sun, most of the time. Just as this was by no means the ten-thousandth hatch cracked.

But then too, the sun outside was in all probability—all probability—not the Sun, and no one there could say what hatch this was in the absolute reckoning.

Now that that was settled, Kim and Sand eased back into their positions. Brunner raised his Key hand.

"Ready. Steady. Go." The thumb came down hard.

The crack became a ring a centimeter wide, two, three. All around the door, an unbroken ring of space appeared. The hatch doors were hypnotic; a steel disc suspended in a circle of air, contracting silently in upon itself, smaller and smaller until one expected it to shrink down to a tin can, a rod, a needle, and vanish entirely. But it never did. It stopped at six inches across; and how much more ridiculous that was, a solid metal pill fixed solidly in six feet of nothing at all.

Such a strange thing to watch, no matter how many hundreds they had cracked down the line—so Brunner set two to watch the gap and not the dwindling door. There were things on the other side of those doors, sometimes, to be dealt with, sometimes, or killed, sometimes.

Around the ring, Sand and Kim saw a night sky with stars, blue-lit soil strewn with rocks that cast single shadows. That meant a moon; one moon. Promising, meaningless, but the smallest things can make hope leap high.

Inward the ring crawled, painting sky downward. A sparkling

line appeared, a band, then a plane of dull light in the night heavens. Guests had once paid Alternities the price of new kidneys or high mansions to visit worlds with rings. Now the sight meant only one more world, one more wrong world. But out they would go nonetheless, to search for a place where people wanted to stay or to leave from.

The landscape was barren, checkered with black shadow and moonlit pale, a plain strewn to the horizon with standing stones.

"Looks like a Stonehenge," Kim said, and cocked his Walker Colt. Cultures that had been intriguing games before the Fracture had mutated afterward, in a contaminated soup of overlapping technologies incubated by isolation after the interline gates had stopped functioning entirely. Some of the "stable" lines had even been genuine, it turned out, invaded by costumed Alternities employees and guests rather than built by and for them, inhabited by people who weren't playing games; that piece of economy had not helped at all when things fell to pieces.

Especially if the real inhabitants took it upon themselves to hunt witches, heretics, and aliens in their midst; a sharpened pendulum that swung at the slightest breath of strangeness.

"It's quiet; very quiet," Sand said.

"And anybody says 'too quiet,' I'll bust him," said Stefan Horek, the man in chainmail. He tapped his nunchakus on the helmet that had replaced his kepi.

The hatch reached maximum aperture. Kim and Sand touched the center disc for luck and stepped out. No one, not even Brunner, could follow until both had signaled all clear. On the word *slam*, no matter in what tone of voice, Brunner would move his thumb and the hatch would shut.

Sound did not pass the hatches; those shut out could not call after the group when it moved on.

The lightstrip put Kim and Sand in an oval spotlight, not a good place to be. Sand at once moved into the night, her black tights flowing in smoothly. She walked around the four-meter vertical stone the hatch had appeared in. The menhir was not unusual; hatches came out in places like that—bank vaults, mausoleums, private railroad cars (figure that one!) the bellies of idols. It had been amusing, once, to step out of the core of a Colorado mountain and onto the dirigible mooring mast of the Empire State Building. Now it was just a long way to fall—

Moonlight saved her life. It caught the blade of the curved sword above her at the last possible instant before it came down.

Sand rolled to the side and the sword cut air. She landed in a cat-crouch, just as when she had cleared New York of costumed lawbreakers, but no longer borne on the wind, no longer with any justice to bring them to.

Her right arm locked straight, thin fingers splayed, and she threw a handful of lightning. The raised sword sucked it up, of course, locking the wielder's fingers to the hilt as the current went to earth through his body.

He fell. She registered that he (she, it?) wore a hooded robe of some dark color; then her Alternities Corporation crimefighter training sought out another target.

She found it, hooded and sword-armed like the first, silhouetted against firelight and standing stone arches. Above the robed figure, above the fire, a human dangled on a rope from the highest arch.

Sand cocked a hand, trying to separate the targets. Then thunder and fire erupted a few yards from her and the robe jumped and slammed down, one of Kim's half-inch lead balls in it.

"Any more of them?" she called.

"Bunch scattered when we got here. Bet they'll be back."

"Let's get him down, then, and go."

The man over the fire hung still, a rope around his wrists. An Orion Wars knife freed him easily, and without pausing to see if his warmth was body heat or fire heat they hauled him to the hatch.

A pounding noise rose behind them. There were hissing shouts in an unrecognizable tongue, and Kim and Sand saw extra shadows dancing in front of them. Kim shouted "Holy shit—an honest-to-God torch-carrying mob!"

The hatch swallowed them; they bumped the carried man on the center disc but got him through. And they both shouted—

"*Slam!*"

The door took about three seconds to expand all the way. Three seconds is a long time when someone's chasing you. Long enough in this case for one of the pursuing crowd to get his dagger hand inside.

But the door filled the space, and that was all he got in. The hand hit the tread, the dagger bouncing away, vital fluids leaking down to be removed by an undertread conduit.

The hand was seven-fingered, a glossy pale green with ruby nails. The fingers curved without distinct joints.

Horek kicked the thing off the tread; it fell below, where a tube

would carry it too away.

And, with all quiet, they looked down at the unconscious man; and things became quiet indeed.

He wore black slacks and boots, a zippered light brown jacket, white shirt soiled with dirt and blood and a black tie completely askew. His face was flat and thin, unhealthy under the blue marker light, his hair short and dark gray. Kim had crossed his burned wrists on his slowly pumping chest.

Just below the hands, embroidered on the tan jacket just over the heart, was the A-arrowhead emblem of the Alternities Corporation.

"He's staff! Wake him up, for God's sake!"

"For your sake, don't you mean, Jones," Brunner said, no anger in his voice but nothing pleasant either. "His body's shut itself down to recover, and you want to kick him awake again. For suggesting that, you get to help carry him.

"Is he all right, Kim?"

"Battered but not broken. He can be carried."

"I'll take the other end," Horek said. He emptied his pack, passing the items around to others. "I'd like a receipt," he told Niemoller when the latter took his helmet. Then Horek rearranged the tubing and fabric of the pack into a stretcher. Alternities had a special weakness for what they called "serendipity design" and others called "putting your eggs in one basket."

"Hurry it up," Brunner said, clipping the Key to his belt. "We've got the full hundred ahead of us." And they hurried, scraping heads and elbows and shins because the tube was close enough quarters without working around a limp body as well. In about an hour, gear and newcomer were properly slung, order of march was shifted to general satisfaction, and they began the hundred clicks to the next hatch up the tube.

The first voice raised was DeLaWarr's. He wore the black coat and hat of a Federal infantry officer, baggy blue trousers, and a red chainmail shirt that no longer made its wearer as powerful as thirty but still turned knives.

DeLaWarr, half Union soldier, half superhero, thumbed his British cavalry whiskers and sang in a good bass voice:

"It is not the same, though grass be green and clouds be
fleecy white;

Not the same, though you hear crickets in the warmth of
summer night;

For you still can tell the difference, though they call the planet 'Earth,'
When they've changed the constellations o'er the nation of your birth!"

Twenty-one voices sang. Brunner sang; Niemoller sang. Jones breathed hard. The sleeping man breathed quietly.

"And your home's been altered through,
And the moon is out of true,
And the eyes that you remember
Are a different shade of blue."

This time, not for the first time, no one looked back at the blue glow of the hatch marker, wondering bitterly if he or she had chosen wrong.

"On the road to Mandalay—"

Ten kilometers went by, and the man on the stretcher stirred a bit. Twenty, and he groaned—they halted, set him down, and he sank back into deep sleep. Thirty, thirty-five, and Brunner called a halt for the "day." All sat down, making relatively soft places among the boxes and plumbing from their packs and spare clothing. "First shift," Brunner said, and every other person in line shielded his eyes from the lightstrip and settled back to sleep.

Then, of course, the man woke up.

"Where the hell—" He tried awkwardly to stand, slipping a foot off the tread and landing in a confused heap against multicolored pipes and Horek's side. Then he spoke again, and everyone, no matter how deeply asleep, was wide awake and staring: "*We're in the tube!*"

Charlie Brunner had shoved and slipped and crawled back down. The man's eyes lit on Brunner and swelled. "Jesus God, you're NEMSEC! I guess that explains—no, it doesn't—what the hell are you people doing in this Space? We didn't even—"

"I'm Brunner," he cut in. "NEMSEC Five. I'm bringing these people back to Homeline. Now, who are you? Where are you from?"

"Alvin Lermontov, Hardware Two," the staff man answered, as if it were perfectly natural that Brunner should get all his answers first. "Alternities Center at Ouray."

Brunner dropped to his knees, gripped Lermontov's arm. "Tell me that again," he said, his voice intense but completely under control. "Where did you come from?"

"Ouray, of course, Colorado . . ." Then, nervously, ". . . Earth."

"And you came here by the tube?"

"Six of us—there *were* six, that is. That's just it—how did you . . ."

"How many hatches?"

"What?"

"*How many hatches up the line? How far to Ouray?*"

"A hundred kay—just one! Jesus, how many are there?"

"If you knew," Brunner said, "if you bloody well knew," and then came the explosion: cheers and shouts and a blasphemous prayer or two.

They nibbled chocolate from the rations and drank thimblefuls of whiskey from a flask in Niemoller's pack. Lermontov accepted a drink with thanks, but said no more to Niemoller, who replied with a sharp look and a nod.

Finally Lermontov eased up to where Brunner sat, whispered to him. The two men walked a dozen yards up the tube; the others barely noticed.

"This thing you've done . . . it's beyond belief. Tell me again how long you've been marching."

"Oh, there are people who've been along two hundred hatches, maybe three. Five years by our numbering. They come and go—the newest is about fifteen. Except for you, that is."

"A long, long way."

"No argument there."

"And the tube, is it all like this?"

"Give or take an inch of elbow room, every bit is just like this."

Lermontov nodded. "We wondered, when we found the aperture—the, ah, hatch—near the Center. But we had no idea it went on so far."

"Did you know *Alternities* went on so far?"

"All your lines—hatches—were different?"

"Some in small ways, some in large, but yes."

"There are many less than three hundred lines on the Ouray master file."

Brunner produced the Key. "This isn't on the Ouray file either, is it?"

Lermontov held out his hand. Brunner put the Key back on his belt. "Well?"

"We'd forgotten Space-sub-four. Only one of the six of us who—started out—had even seen the tube. And we had to find it by experiment."

"The Fracture?"

"The Fracture. The Fracture. *Damn* the Fracture. . . . Tell me, N-Five Brunner, where did you first hear that word?"

"I don't know. I've forgotten. Maybe I made it up."

"Well, we've forgotten as well, at Ouray; and we thought *we* made it up."

"So who in the name of God *did*?"

"Whoever the builders were, I suppose. Maybe it has something to do with what Alternities really is."

"Don't look so startled. If you haven't wondered what this thing is you're a damn fool. It can't just be an amusement park."

"Look. If you'd never in your life heard of or seen an automatic pistol, you wouldn't know what one was if you found it. You might grab the barrel and pound nails with it, if you had nails that leeded pounding. And you might gut-shoot yourself doing that, too, but whose fault would that be?"

"You think we've been misusing the system?"

"Maybe. Maybe somebody else was. Didn't anybody ever get tempted to play with the machines, where you were?"

"You mean play God."

"That's a good name for it."

"Yes, I . . . we did."

"I'm not accusing."

"The operation was so . . . large, so organized . . ."

"You ever see a bunch of kids play with blasting caps? They're very well organized, till one goes off."

"A moment ago you said the Fracture—if somebody up there wants it called that, we'd better keep it up—the Fracture had moved the gate."

"It moved a great many things around. There seems, for instance, to be a Space-sub-five now; but I wouldn't go near it for any price . . . even if we could get inside the mountain."

"You can't? Is it all gone inside?"

"We are out of touch with everything below the Widow's Walk. The deep shafts are broken, full of rock. The people down there either got out through the discontinuity, while it was still open . . . or they died, I suppose." He leaned forward. "That was why we pried the tube open, couldn't you guess? We didn't really know what it was, much less where it went; the only thing on the

nonDeep records is 'a simply connected Mach universe.' So many words. We thought it might get us into the mountain core. We never expected what we found."

"It is kind of horrifying, isn't it. A subway tunnel to the stars."

"How many hatches for you yourself?"

"You lose count after the first hundred. Some have seen three hundred, maybe more; a hundred thousand meters apart."

"Uh . . . your Mr. Niemoller; how long has he been marching?"

"As long as any of them; him and Jones."

"There won't be—you know, he won't be staff after we reach the Center. There should be some recompense—but the Corporation—I mean—"

"What will Niemoller do without tanks to drive? Find a war that has them. If he can't find a war, maybe start one. Men like Niemoller can't be idled. They always find a job to do."

Lermontov bit his thumb, nodding absently. "Just so. Brunner, does it strike you as strange that this is all so . . . well, *fit* . . . for humans? Right height, width, temperature, air?"

"You're prejudiced, Lermontov. You've cracked one hatch and found it full of monsters, so you think they all are. I've seen hun-



dreds, and the answer's obvious to me. We're in a human-built, human-engineered system. The monsters are just one more piece of the Fracture—the biggest damn malfunction in the universe."

"But that's it; that's it exactly! Ouray Center was built after I was born, Brunner. I joined them fresh from school; I *know*. And I know that *my* Alternities Corporation did not build—this. So who..."

"Not your Ouray, so was it mine, you mean? No, Lermontov, my Homeline didn't build this either. We used the 'already there' concept, and tried not to think about it much. *But*"—he leaned forward, pinched Lermontov's wrist—"there are twenty-one people behind us looking for their Homeline; and most of them have been lost too long for variations in the names of English manor houses or Tibetan politics to matter much to them. I will thank you not to poison their thoughts about the trueness of a line any further than they may already be."

He drew out the Key again. "I know, for instance, that we only had one of these. And since you're sitting here now, this can't be yours, can it? So yours—and your Ouray—can't be mine."

Brunner freed Lermontov's wrist.

"I was . . . only speculating, not poisoning, Mr. Brunner. You're a Five. I understand about that.

"But understand this: I've never in my life seen a device like that Key of yours."

Brunner's eyes came up hooded. "What do you mean? How'd you crack the tube?"

"A breadboard assembly that took a man to carry and two more to hold the antennas for. Now do you get what I am saying? Our Key is buried under the mountain with the rest of our knowledge, damn it—unless that's it you're holding right now."

Brunner put the Key away, massaged his eyes with a thumb and forefinger. "Let's go back and sleep on this. No mention of what we talked about, Alvin?"

"No mention . . . Charlie."

Brunner pulled down his visor and folded up to sleep, and only a few of the others heard him whispering:

"Come you back to Mandalay,
Where the old Flotilla lay,
Can't you hear them paddles chunkin' . . ."

Sleep was long in coming and hard to hold on to, but Brunner

insisted that no one was moving until everyone had had five hours by Kim's pocketwatch (the only springwound timepiece in the party, and thus the only one functioning. Even so, he only bothered to wind it when they had something particular to measure. Time seemed a foreign and artificial device, in Space where planets were a hundred clicks apart.)

Lermontov watched the "morning" ritual with some amazement. "Modest?" Sand asked him. "I was too," and handed him a sponge, showing him which valve in the wall to turn for water, which for steam to heat the wet sponge, which for compressed dry air. "Go on, rinse the works. We'll love you for it. What, did you think we drew curtains?

"Nobody's modest and proper after the first dozen hatches, bathing in the steam jets and squatting over the edge of the tread—and especially not sleeping on that tin waffle."

"Do you, then—"

"Not often. Too much bumping and banging while you're bumping and banging. Mostly we wait for a friendly line. But it can be a long walk to one of those."

"I hadn't seen anyone . . . ah . . ."

"You've been here one night. There's a lot you haven't seen."

"How long have you done this?"

"I'll interpret that my way: one hundred and, um, thirty-two hatches, counting yours. Thanks for reminding me." She scratched a tally mark on the inside of her belt.

"Have you ever—" he looked for Brunner, saw him occupied—"found a line you wanted to stay in?"

"In three years plus? Oh, yes." She brushed her fine black hair. "Twenty, at least. We all have—except Charlie, I think. And maybe Gunther Niemoller."

"But he seemed least satisfied of all of you. With the march, I mean."

"I know. He's always singing his German soldier songs against 'Mandalay,' and he wrote a verse for *it* about 'what good's Homeline, anyway.' But he's been walking for three hundred hatches at least! He marks his belt, inside, like I do; I caught a glimpse once, and it was covered with notches. If he were as eager to quit as he claims, I'd think he would have done so by now, wouldn't you?

"Look at his uniform. People call him a Nazi every now and then, but what's that mean? I never in my life saw a real Nazi, but I read they all hated Jews and Poles and Blacks. Well, De-

LaWarr's Jewish and Horek's Polish and I'm black, and he treats us as much like friends as he treats anybody. The one he kicks around is Deke Jones, who's white and American and off his nut about war."

"A great many Germans were not Nazis formally," Lermontov said quietly. "They nonetheless took orders well."

"Charlie never has and I can't believe ever will order anyone to come with him. If Gunther keeps coming, it's because he wants to."

"Perhaps he is looking for something . . . particular."

"We all are. For Homeline."

"And when you get there?"

She closed the front seam of her leotard and wiggled for fit. "I won't throw lightning bolts any more. I'll manage a bank again, instead of protecting them."

"That's strange, you know—first time in I don't know how long I've thought about what I did before the Fracture."

"You won't fly, ever again."

She laughed, looked at her dark hands, thumbed the calluses centered in her pink palms. "I haven't flown in years. That counts the time between the Fracture and when Charlie and the party came by. And I wouldn't if I could."

"The first sign of something wrong I had—after the Fracture—was someone in a gold and black costume falling out of midair. He or she hit the concrete not thirty feet from where I was standing. I didn't know the suit and there wasn't much else to recognize."

"It could have very easily been me, just free-flying along when suddenly bang! off goes the power and you're up there in the air and you aren't a superhero any more."

"You tell me something now. You're staff. What exactly does it mean to be a 'Five'?"

"I doubt I can explain . . . exactly. I was told once, though, if a Five tells you something, even if you know for a fact he's wrong, he is *right*. Does that help answer you?"

"Sort of," she said softly. "Mr. Lermontov, there isn't really any Alternities Corporation left, is there? Except for this?"

"There is . . . no, there is not, Ms. Sand. Except for this."

"We have a new member today," Brunner said when they were dressed, packed, and filed, "and we're going to teach him the school song."

"Starting with old Brother Kipling's verses, then:

"By the old Moulmein Pagoda, lookin' eastward to the sea . . ."

Twenty-one voices sang along, and the last one learned quickly. Thirty-five kilometers passed like nothing.

"... Outer China 'crost the bay! Right, then, that's the day's march. All stop; everyone settle in."

"What's that, Charlie? We're still fresh; let's do it and be done with it!"

"Hell, yes! I've spent my last night sleeping on this trolley track!"

"Why not finish it?"

"Because you're not fresh." Brunner turned to face the jostling line. "You've marched thirty-five, and that's the limit without a rest period."

"Why, Brunner?" It was Niemoller, finally. The light caught the badges on his beret and tunic. His holster flap was opened, and though his hand was nowhere near the pistol butt his thumb was stretched away from his fingertips in a ready grip.

Too quick to follow, Brunner's hand flipped back and forward, coming up with his stunwand. He slid his feet apart. "Because it's the rule," he said. "You'll be wasted after seventy kilos nonstop. This is another hatch we're bound for—just the next hatch up the line, do you understand that?"

Forty-four eyes trained on Niemoller. He looked down at his open hand, his holster. Then he brought his hand up again empty and faced Brunner directly, looking through rather than past the people separating them.

"Yes," he said, in a mild voice that from him was more startling than a shout. "I do understand, Charlie. One more hatch up the line. One more night in the field."

"Then are you going to sit? The wand won't hurt you, you know that—so I won't wait an instant to use it. I can make anyone rest who doesn't want to."

"Not I," Niemoller said pleasantly. "I think I'll take my ease right here." He sat down, put his legs out, pulled his beret down to shade his eyes as though it were the Tarnkappe and he had vanished from view. "*Vor eine Kaserne, bei dem grossen Tor,*" he sang, "*Stand eine Laterne, und steht sie noch davor*—my singing doesn't disturb you, does it?" He waited.

"No," Brunner said, and slipped off his pack. "First shift. Kim,

wind your watch. Five hours for everyone."

*"Da wollen sie uns wiedersehen,
Bei der Laterne wollen wir stehen,
Wie einst, Lili Marle-ne,
Wie einst, Lili Marlene."*

After the evening shuffle, Sand was sitting near Brunner—who was, as always, a few paces ahead of the line. He sat/leaned forward, hands around knees, head tilted. His visor hid the upper part of his face; downward light shadowed the rest.

"Charlie?"

He moved nothing but his lips. "I'm first shift. It'll wait until we move out."

"No, it won't. Charlie, what are you going to do when we reach Homeline?"

"Whatever there is to be done."

"There's no more Alternities outside, Charlie. When we get Home there'll be nothing more to do."

"You didn't listen to Lermontov. They're still digging at the mountain, trying to figure out what went wrong."

"That's just cleaning up the mess. That's not your job."

"That's what Lermontov thinks, too." His head turned. The lightstrip bounced two brilliant pinpoints from the smooth dark visor, false eyes that stared at her. "Do you know what my job is, Sand?"

"You're a NEMSEC Five."

"You don't know." He turned back.

"I think tomorrow I will know."

He looked at her again. "That may be, Laura. It just may." He rolled onto his side, a position she knew was uncomfortable, but in which no one could look him in the face.

Before she moved back from him she heard him singing. She knew what song, but the only words she caught were "—they don't run buses from the Bank to Mandalay."

"Sand, you and Lermontov on this hatch."

"Mr. Brunner, we needn't—"

"You said yourself things had moved around, Lermontov. Maybe this one has, too. In position? Right. Bloody hell, do you think I'm not eager?" No one answered the question.

"Ready. Steady. Go."

A hair-thin ring of yellow light appeared. Sun-colored light—but hadn't they seen that color before? "N—no pressure difference."

She had to use both hands to twist the sampler properly. "Checks out normal."

"All right, then. Ease back, the rest of you! Colorado has grizzly. Wildcats.

"Ready. Steady.

"Go."

When the gap around the hatch was a handsbreadth wide, someone said "Trees!" and shut up at once, mindful of Charlie Brunner's eyes.

The open space widened, and everyone saw the trees. And the snowpeaks, and the waterfall that drowned out the rush of tube air.

"I know those falls. On the chopper flying in to the Center—how many years ago? How many years?"

"Then you can wait another five minutes."

Sand held her place with obvious difficulty. "Anyone visible?" Brunner said, and froze her to the spot.

"No one, Charlie." Her voice was thin.

"Then move on maximum aperture. Right—*now*."

She nearly tripped, despite over a hundred hatches' experience; tapped the floating disc for luck, but the motion was automatic. She saw only ahead.

High country rolled out and away and up. Green pines, ore-faced mountains red as Hell in the afternoon sun, yellow flowers scattered in scrub grass. A huge chocolate-candy cliff stood before them, cut down the center by a waterfall of silver and lace and smoke. Behind it all, white-capped mountains ("Snow! My God, *water snow!*") etched into a sky of deep blue. Wonderful sapphire blue. *Homeline blue*.

Sand staggered forward, gravel crunching under her boots, her hair whipping in a sudden breeze. Her right arm hung down, fingers spread, as though she meant to thunderbolt anything alien in the landscape.

She spun to face the hatch, a clean doughnut hole in a layered black-shale face. She looked at the white, expectant, very fearful faces inside; down at the soil, which stubbornly remained a natural, earth color; up at the sky.

Something flickered down her face like a knifeflash laying it open and ugly. Then her look healed.

"Charlie? Charlie, come here."

"Coming, Laura." But Brunner got out last, not first, tossed on a tide of mismatched people who dropped packs and weapons and bits of costumes as they rushed into the world.

And when only Brunner was left standing in the opening, he waved Sand back inside. She went.

"What is it, Laura? The moon?"

"You knew."

"Guessed. Sky's all right, and the clouds aren't green, and the sunlight seems normal. No pteranodon shadows on the ground. So it had to be the moon that you saw."

"So this isn't—the Homeline. We're going on."

"You're going on; I'm not."

"What?"

"I spoke clearly. Here, take this." He pressed the Key into her palm. "*Take* the damned thing; I may not have another chance to give it to you quietly. You know how to use it."

There was a shriek from outside: "The moon! Damn it, look at the moon!"

"Let's go look at it, Ms. Brunner," Brunner said to Sand. She followed him out, not speaking.

There was a hole in the moon; a bite taken from it, with a patch of small white specks around the damaged spot.

"The South Germans," Lermontov said, his eyes on Niemoller, his voice uneasy. "In WarFive—they hit hard at the North African base up there. They even changed its orbit a little."

"Mr. Niemoller, our Transalpine '44 line was shut down years before the Fracture. It was too much of a grudge match. It got too violent. I'm sorry . . . but I don't know what there is here for you. The South German government might find—"

"South Germans? *Teufel, der du bist in der Hölle*, what are South Germans? Some sort of WarFive you must have had." He drew his Walther. Lermontov ran back, throwing his arms in front of his face. Niemoller shot some rocks to pieces with his explosive bullets. "Enough for me. I am not welcome. Do you come, Jones, eh, *Herr Panzerführer*?"

Jones stood, trembling. "No," he said, having difficulty forming the words. "No more. It's only—only a hole in the moon, that's all; only a little hole up in the moon!" He moved to put Lermontov between himself and Niemoller. "I can live with it, whether you can or not! I can live with it!" His whole body quivered as he pointed at the wounded Moon.

"It is not the same—" Horek said quietly. Some people turned away. Niemoller put a new clip in his gun, his lips pressed tight. He holstered the pistol, not smiling or frowning, not blinking.

"You see," Brunner whispered to Sand, "why it's such a long march to Homeline? It isn't really an absolute. It isn't the place you left from. Only the place you get to and stop."

"But why are you stopping? It's no more your Home than Gunther's."

"Yes, it is. All I am, all I ever was, is a trooper for Alternities. And Alternities doesn't exist now. Except *here*—here there's work being done, and a place for me. Lermontov doesn't realize that; he hasn't marched, he doesn't know the difference between home and Homeline."

She looked down at the Key clipped to her belt. "So you want me to do, here and now, cold, what you've done since the Fracture."

"Come with me." They went behind a crop of rock, out of sight, out of mind. "Listen carefully. Believe what I say."

"I haven't been marching since the Fracture. Only for two hundred hatches. There isn't any Charlie Brunner, leader of men—or rather, I'm the seventh Brunner since the march started. You're going to be the eighth."

"Do you know who *has* been here since the Fracture—which by the way was nearly a thousand hatches ago?"

She leaned against the rock, her jaw muscles loose.

"That's right. I'm not the leader; I don't have any talent, as that incident last night should have proven. *He's* got the talent, and he's a magician. By indirection, by making noise and bullying his current stooge, he makes somebody else look like a leader. Couldn't you see, last night, how he kept everything in control when I was making a scene? Just with a tone of voice, and a song."

"Niemoller," she said, as if the word tasted foul. "But why?"

"Because we burn out, that's why. A real leader couldn't ever find Homeline, don't you see; it isn't there to find. A real leader would be trapped here forever on his way to bloody well nowhere."

"So it's a role. A mask and cape, like that super-suit of yours, that attracts attention, that keeps lost people marching to something that will serve for their Homeline. And can be passed on when the wearer finds something that will serve for himself. Some hundreds of hatches up the line you'll pass it on . . . Ms. Brunner. Now I give you the Key and the name and the blessing:

May Gunther Niemoller live forever.

"Now, I suggest we go on to the Ouray Center here. Some of us will be staying. And I'm sure you'll find some people eager to find the Homeline.

"Get 'em there safely."

They began walking. At first she hung back, not speaking. Then she reached into her pack, came out with her costume cape, the one she had flown with. She moved to hook it to her shoulders, then hesitated and tossed it across one shoulder.

She ran ahead, to pace him. "I'm going to fly again, aren't I? In a way, at least. Free flight and power."

"The illusion of flight, that's all Alternities ever had to sell. Remember that."

She shook out the cape, let it float in the clean Earthly breeze. For a while she looked at it, and him, and the moon.

When the party reached Lermontov's Ouray, she walked in the lead, and the NEMSEC officer—whoever he was—trailed lost in the pack.

They sorted themselves into a marching file, an odd group half in tan jackets and half in strange costumes, that now numbered thirty but would likely gain or lose at the next hatch, or the next, or still the next hatch up the line.

At the head of the column stood a woman in black, a superheroine who kept some of her powers, Charlie Brunner. (Charlene? Charlotte? Maybe before the Fracture. But here, Charlie.)

"We've got the full hundred ahead of us," she said in a high clear voice, "so let's get moving. There's a poem we sing on the way. Some of you know it; the rest will learn soon enough. And there'll be a new verse now and then, to keep you jumping."

"*Ach, doch,*" muttered Gunther Niemoller, giving the man behind him an ungentle elbow in the ribs. That man, who wore the uniform of a Wehrmacht tank commander, winced and nodded a little stupidly. The newcomers looked at Niemoller and his companion, whose name was Stefan Horek; and they missed the strange whisperings among the older members about the leader, Brunner. That talk would die down soon enough.

"Up the line, then, and after me! Old Brother Kipling's verses first:

"When I left Rome for Lalarge's sake,

By the Legions' road to Rimini,
She swore her heart was mine to take. . . ."

And not for the first time, more than one of them looked back
with a throat full of doubt that he or she had chosen right.

"And I've lost Britain and I've lost Gaul,
And I've lost Rome, but still and all—
I'll find the Homeline!"



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ON OULIPO ALGORITHMS, ANAGRAMS, AND OTHER NONSENSE

by Martin Gardner

There is a French group of eminent mathematicians and writers who call themselves the Oulipo—a name that derives from *Ouvroir de Littérature Potentielle*, or Workshop of Potential Literature. They are dedicated to every variety of word play, especially the devising of "algorithms" for transforming poems and prose passages in such a way that the result is almost, but not entirely, nonsense. (For details about this slightly mad group, see my *Scientific American* column for February 1977.)

One famous Oulipo algorithm operates as follows. Take the first sentence of a short story and number its nouns from 1 to n . Unhyphenated two-word nouns, such as "Volume 5," are treated as single nouns. Now go to the end of the story and number the nouns from 1 to n , taking them in *backward* order from the end. Return to the story's first sentence. For its first noun substitute the story's last noun, for its second noun substitute the second noun from the end, and so on until the n th noun of the opening sentence has been replaced by the n th noun from the end.

The result usually makes a strange kind of sense that conveys something of the story's mood and the author's style. One may take liberties with capitalization, and also alter singular nouns to plural (or vice versa) when this is necessary to make a sentence grammatically correct.

The six sentences below resulted when I applied this crazy algorithm to the opening sentences of six well-known science fiction stories by eminent writers:

1. Three hundred stars and more from night, one hundred from the sunset of glow, in the wildest king of Blind Valley, there lies that mysterious mountain thing, cut off from the sky of vastness, the darkness of the purple.
2. Actions are considered crazy anywhere in the man.
3. By the day he reached the morning of the little evening, even the gardens of his walls were drained.
4. "This is a slightly unusual star," said Dr. Fuss, with what he hoped was commendable everything.
5. Parts took time of the month off the Methuen and opened it to chemistry.

6. Night, sun of glow, thrust out a belligerent lower brightness and glared at the young glow in a hot city.

Can you identify the authors and story titles? The answers are on page 73.



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ON COMMISSIONED IMAGINATIONS

by Sandra Miesel

illustrated by Frank Kelly Freas

Science Fiction's Contribution to the NASA Fine Arts Program

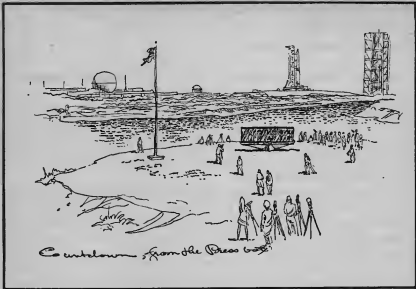
"Don't fall in the firepit, lady," yelled our guide as I stooped to retrieve a pen Kelly Freas had dropped. He was sketching by the glow of a flashlight held in his teeth. There was no real danger since my sneakers gave excellent traction on the rough concrete, but it never pays to take one's surroundings for granted at Kennedy Space Center, especially in the dark.

I returned to my companions and resumed admiring the dazzling spectacle before us—a Saturn I-B vehicle on its lighted pad, poised for the next day's launch. Sparkling between interlaced spotlight beams, the rocket looked as if it were moored to its gantry by light alone. After some argument, we decided that those powerful white spotlight shafts acquired a faintly greenish tint where they struck low-lying clouds. We had to pinpoint our observations because we knew that afterwards we would have to depend mostly on our memories of the scene. By this stage of our tour, no one had any more of the fast film necessary for good photographs. Bodies ached, mosquitos buzzed and sometimes bit. Yet nothing mattered to us except the Beauty.

Why were we dozen artists sitting on the apron of a dormant launch complex in the middle of the night? We were trying to help the National Aeronautics and Space Administration prove once more that the eye is mightier than the lens.

NASA is so convinced of art's value as an indispensable supplement to the photographic record, it backs its belief with action. Since 1962, it has invited coverage of its activities by scores of artists—including science fiction artists James Cunningham, Vincent Di Fate, Kelly Freas, Freff, Robert McCall, Ron Miller, Rick Sternbach, and myself, Sandra Miesel. NASA commissions imaginations, explains former Deputy Director James Dean, "to witness, select, edit, interpret, and probe for the issues, meaning, and emotional impact of events which must rank among the most important of all time."

In response to this communications challenge, artists have chronicled the manned space program from Gordon Cooper's Mercury 9 orbital mission (1963) to the latest test flights of the Space Shuttle.



Thanks to NASA's liberal access policies, they have witnessed stirring events from Florida beaches, Houston control rooms, and Pacific aircraft carriers. From the panoramic to the intimate, no visual subject has escaped notice. At one time or another, they have viewed launches, watched suitups, crawled into simulators, scanned monitors, sat in white rooms, roamed buildings, paced runways, and wandered around pads.

The exciting aesthetic opportunities afforded by NASA's fine arts program are only the latest phase of a longstanding tradition. For centuries, artists have routinely accompanied explorers and frontiersmen to record their discoveries. Therefore it is only fitting that today's artists help document the exploration of the space frontier.

American artists in particular have distinguished themselves as interpreters of historic scenes and events. Without George Catlin's Indians, John James Audubon's wildlife, or Thomas Moran's landscapes, twentieth century perceptions of nineteenth century America would be far dimmer. Not even the invention of photography stilled the flood of documentary art: the popular image of the Civil War has always owed as much to artist Winslow Homer as to photographer Mathew Brady.

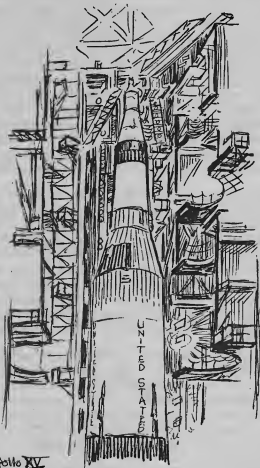
The United States government employed official artists as well as photographers in both World Wars. This practice has been continued in peacetime by the individual armed services, but prior to the establishment of NASA's program, no civilian agency had been a patron of the arts. NASA's example later inspired the Department of the Interior to commission a set of landscapes by famous contemporary painters as part of the U.S. Bicentennial celebration.

The common thread uniting all these activities is official recognition of individual creativity. The uniqueness of each participating artist's perceptions and responses is the best justification for documentary art. NASA's fine-arts program has shown that art is a precious counterweight to mass media images of the space program. "Machines can duplicate and preserve the cold facts," says former NASA Administrator Thomas O. Paine, "but the emotional impact and hidden meaning remain within the scope of the artist and the poet."

The artist's contribution begins at the sensory level—for instance, the human eye can distinguish colors more precisely across a wider range of intensities than film or phosphor dots can. But the artist makes his greatest impact in the areas of composition and selectivity. Not being limited to the sights in a viewfinder, he can take the best vantage point—real or imaginary—and emphasize key details or even distort appearances in order to convey the true meaning of what he sees. An artist does more than simply record separate impressions. He expresses relationships and communicates values so that the resultant artwork speaks to viewers' hearts and souls as well as minds.

Thus the body of work produced for NASA refutes the all-too-common fears of technology being ugly, soul-deadening, and destructive. It reminds society that machines can be as noble in form and purpose as the human hopes they serve. Or as Vincent Di Fate says of space technology, it "is merely a tool by which man can confront the new frontiers which lie beyond the confines of earth. In space, man is still an individual, conquering, exploring, reaching out to satisfy the growing wonder within him."

To date, more than 50 artists have participated in NASA's fine-arts program. They have recorded their impressions in thousands of individual works ranging from thumbnail sketches to wall-sized paintings. Five hundred of the best pieces were exhibited at the National Gallery of Art in 1965 and again in 1969 before being sent on tour throughout this country and Europe. These works are now in the collection of the National Air and Space Museum.



Apollo XV

Judy

The big bird - from halfway up

A representative selection appears in *Eyewitness to Space* by Hereward Lester Cooke and James Dean (Abrams: New York, 1970). The most conspicuous contributors to *Eyewitness to Space* were Paul Calle, Lamar Dodd, Mitchell Jamieson, Robert McCall, and Franklin McMahon. The roster also includes mainstream notables like Robert Rauschenberg, Norman Rockwell, and James Wyeth as well as scientific favorites such as Chesley Bonestell, Ludek Pesek, and Nicholas Solovioff. As a woman, I was disappointed that only one of the book's 258 plates bears an identifiably female byline.

Overall, diversity is the fine-arts program's dominant characteristic. Wisely recognizing that variety meant breadth, NASA set no criteria for the commissioned art except quality. Artists were free to use any style or medium they wished. On-the-spot sketches have been as welcome as studio paintings so that immediacy balances detachment in the archives. But whatever the techniques or approaches used, each contributor has added new threads to a network of creative traditions. Although the space program offers to artists subjects never before seen on earth, the aesthetic problems raised by them are nonetheless centuries old.

Technological artifacts, environments, and activities are staple elements in Western art. Today's NASA artist portraying the glittering intricacy of the Lunar Lander is heir to those Northern Renaissance artists who painted metalwork, glass, and faceted gems with loving precision. His efforts to capture the shimmering splendor of a rocket on its lighted pad continue the seventeenth-century campaign to master the effects of artificial illumination. His studies of colossal structures like the Vehicle Assembly Building recall the images of monumental or fantastic architecture that were popular in the eighteenth century. To paint a flaming rocket wreathed in glowing vapors is to rework dramatic scenes of the nineteenth century's chief mechanical marvel, the railroad train. Thus the NASA artist applies the lessons of the past to the needs of the future—beauty really is ever ancient, ever new.

That we as artists—and as human beings—could play some part in the grand space enterprise is an incomparable thrill. Being artists opened NASA's doors to us, but being SF artists gave us a special historical claim on those privileges: we were entering into our rightful inheritance.

Behind us stand five thousand years of dreams. Speculative artists have been picturing those frontiers yonder since the Sumerians illustrated their legend of Etana's eagleback flight to heaven. Millennium after millennium the dream of discovery took clearer visual

form. The names of more literary voyagers joined the litany of wonder and commanded the attention of artists: Ulysses, Alexander the Great, Mohammed, St. Brendan, Sir John de Mandeville, and Cyrano de Bergerac, to name but a few. Whether bound for Heaven, Hell, or the Lands Beyond, these journeys spurred real exploration.

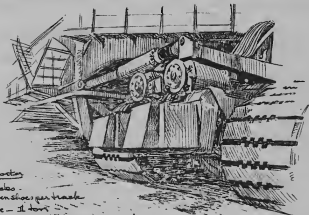
Then, in the past century, the literary, artistic, and scientific versions of the dream met and joined forces. Reasoned attempts to write and visualize fictional voyages to other worlds coincided with early experiments in rocketry that would eventually make such voyages possible.

The process continued as serious space research expanded and advanced. Veteran personnel at Kennedy Space Center reminded us that many of today's space scientists and engineers grew up on SF. Their adult careers are the fulfillment of their childhood yearnings. Not only had our Apollo-Soyuz Test Project guide read SF with pleasure for thirty years, he enjoyed telling anecdotes about the influence of science fiction on science fact. In the very shadow of the VAB he recalled that a vehicle assembly building had been shown for the first time in Fritz Lang's *Die Frau im Mond*. This 1929 film had also foretold the invention of the V-2 rocket and originated the now-traditional blastoff countdown.

More recently, Chesley Bonestell's paintings helped accustom the American public to the feasibility of space exploration years before this was proposed as a national goal. And as Issac Asimov points out, SF illustrators had made the spacesuit "an old friend" decades prior to the first moonflights.

Of course, influence has flowed in the opposite direction as well. Russian cosmonaut Aleksei Leonov, a member of the STP crew, paints SF. Some American space professionals like Joseph Green write it. So does European astronomical artist Ludek Pesek. Once actual hardware exists, it enters SF's store of useful imagery. The present is constantly rendering visions of the future obsolete. (Nowadays, Frank R. Paul spacecraft and E. E. Smith space opera have retired to the realm of nostalgia.) Both illustrators and writers of SF must keep up with the latest advances in technology in order to design convincing futures.

Yet despite this proud heritage of speculation, Robert McCall is the only SF artist who had made a significant contribution to NASA's fine-arts program so far. Nevertheless, the rest of us SF participants in NASA's tours and in other expeditions to space facilities are diverse enough as a group to form a representative cross section of the SF art field. Our experiences and reactions also typify



Transporter

Eight tracks

3.5g seven shoes per track

Each shoe - 11 tons

(which comes out to over 400 tons
of cleat tracks alone!)

those of other NASA artists.

To begin with, we pursue a wide range of art careers. Robert McCall is a technical illustrator, muralist, and film consultant (*2001: A Space Odyssey*); while James Cunningham is a gallery artist, designer of supergraphics, and art-education lecturer. Kelly Freas, the most honored of SF illustrators, has past ties to comics, advertising, and other forms of commercial illustration. Vincent Di Fate and Rick Sternbach are best known as SF illustrators for books and magazines. Ron Miller, who was Director of Art at the National Air and Space Museum, also illustrates SF. Like Sternbach, he too is a scientific illustrator. Freff and I are more writers than we are artists, he chiefly as a journalist, I as an SF critic; but we have both written about art. He illustrates SF; I interpret astronomical phenomena in mixed-media needlework. All of us except McCall are regular contributors to SF convention art shows.

Our styles and attitudes are as diverse as our careers. At one aesthetic extreme is realist McCall, whose eye dissects and whose hand depicts machine anatomy with stunning accuracy. At the opposite pole is Cunningham, who constructs visual analogs of space subjects from purely abstract geometric forms. The rest of us range across the middle ground. To Freas and Di Fate, machines are pri-

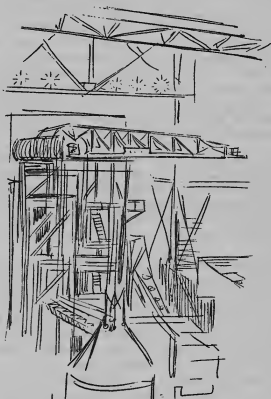
marily emotional symbols, means to humanistic ends. They emphasize dreams rather than hardware. The same is true of Miller, a specialist in lyrical extraterrestrial landscapes. But on the other hand, hardware is a major element for Sternbach, a representational painter of cosmic scenery. Freff and I share a fondness for ornamental design but his is turned to figurative, often fantastic ends while mine is formal, impersonal, and abstract.

All of us except Sternbach witnessed the Apollo-Soyuz Test project launch in July, 1975 as NASA artists. Most of us had also planned to attend the launch of Voyager I in September, 1977 but that tour never materialized. However, our contacts with the space program have been many and varied even without NASA sponsorship.

McCall is the veteran here. He was recording NASA's activities five years before the fine-arts program began and then took part in the very first official artists' tour. His two decades of travel to space centers exemplifies the enduring fascination of the subject. "I never tire of it," he says. "It's too stunning, too dramatic. It's such a theatrical kind of experience." ("Theatrical" is the best word for the first space shot he witnessed in 1958 when a Thor-Able rocket exploded shortly after liftoff.) He has seen all the sites and most of the sights from the Mercury missions through Gemini, Apollo, and Skylab flights to the earliest tests of the Space Shuttle. His fondest hope is to secure a berth on the Shuttle someday.

Sternbach and Freas have also been frequent visitors to Cape Canaveral. Sternbach's astronomical paintings for Cornell University and NASA's Ames Research Center have been used in NASA press releases. More work of this sort has been commissioned. Freas, who proudly describes himself as a "birdwatcher," has watched half a dozen Saturns take wing. He collaborated with Gordon R. Dickson on an illustrated essay ("A Matter of Perspective," *Analog*, December, 1971), which is an excellent demonstration of the value of artistic sensibilities in journalism. Freas designed the official Skylab I mission patch and published his own series of posters in praise of space exploration.

Cunningham represented the Metropolitan Arts Council of Indianapolis at several launches. He followed the Viking Lander from its Florida assembly through its launch to receipt of its first touchdown transmissions from Mars at the Jet Propulsion Laboratory in Pasadena. "I'd seen the Viking launch," he remarks, "but that was just hardware going up. Once the data started coming in, I knew scientists were finally taking the search for life on Mars seriously. These people had put eight years of their lives into the Viking



25 TON | 10 TON

*This crane is no
weakling...*

project. Watching their joy and anguish over the results was the most exciting aspect of JPL for me."

Freff was also at JPL for the Mars report with the press credentials that had previously taken him to the launches of Apollo 17 and Skylab as well as to the Skylab I crew's splashdown. Of the latter adventure, he remembers "marvelling at how slowly the capsule fell, how tiny it looked, how . . . *gentle* the whole thing was." I, too, had a press pass for Apollo 17 and wrote magazine articles about that experience and the Apollo-Soyuz launch ("Like the Sun in Splendor," *Amazing*, October, 1974 and "When NASA Commissions Imaginations," *SF Monthly*, Vol. 2, #12). In summary, we artists have visited space facilities under whatever flags of convenience we could fly.

What drew us initially and keeps drawing us back time after time is our common enthusiasm for wonder. And Kennedy Space Center is the chief shrine of that wonder, a site to be approached with the reverence and eagerness of pilgrims. Its matchless beauties cannot be exhausted in a single trip. They invite repeated contemplation because some fresh aspect or new development comes into view on each visit.

First, there is the sheer excitement of being *there*, in the very place where dreams are assembled and flown. In Miller's words, the thrill is "seeing in concrete form all the promises that had been made to me since elementary school." These are the skies that were torn asunder, this is the ground that shook with the fury of rockets' passage. Real astronauts trained on these simulators, dressed in these rooms, and were monitored from these control panels. Space vehicles were built in these soaring vaults and borne down this track. These rusting gantries once held history in their arms. The Space Shuttle will land right here. This waiting rocket is going to the Moon, to Mars, to the ends of the universe.

And not only are these spectacular sights real, they are also unique. Nothing else on earth looks like them because nothing else has to perform their functions. No Vehicle Assembly Building was needed until there were space vehicles to be assembled, no crawler transporter until there were space loads to be transported, no crawlerway until there was a transporter to crawl upon it. At the time of construction, the building was the largest, the transporter the mightiest, and the crawlerway the sturdiest thing of its kind in the world.

The sights in and around KSC prove the old rule that contrast is the first law of art. This citadel of the most advanced technology

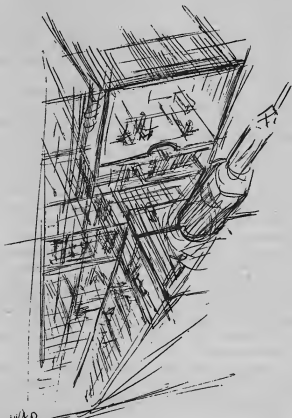
and loftiest human ambitions is surrounded by thousands of acres of unspoiled wildlife refuge adjacent to sleazy little towns and the automated sterility of Walt Disney World. The distinction between healthy and harmful uses of technology was never clearer.

Inside the Center, novel juxtapositions of color, texture, form, scale, brightness intensify the general impact. On the Apollo-Soyuz tour, for example, all our senses were buffeted by rapid transitions from cool, serene white room to sun-baked launch pad to compact training simulators to the incomprehensible expanses of the VAB. Each step would have been an interesting enough experience in itself but taken together, they inspired pure exaltation. The parts seemed all the finer for being part of the whole.

Space facilities challenge artists' sensibilities as nothing else does. Perceptions stretch to fit phenomena. Intellects grope for analogies. Spirits soar. Senses, minds, and souls thus stimulated respond in different ways. Sternbach bumbled incoherently and as his wife put it, "I've never seen anybody bounce so much." Freff remembers "staunchly keeping my jaw off the ground while helping Jim Cunningham pick up his." "I am not quite the same person I was before the experience," confessed Di Fate. Freas speaks of finding "a peace, remoteness which I suppose is part of the charm of mountain climbing." As for myself, both trips left me with a sense of all-encompassing harmony I have never found anywhere else.

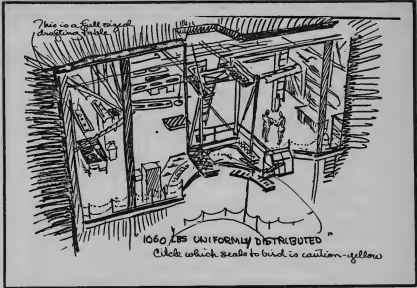
Receiving such impressions, then recording and communicating them constitute the NASA artist's special mission. The sketches, notes, and photographs we made on the spot are necessary—but insufficient—documents by themselves. Freas describes his "pages and pages of scribbled notes, all inadequate, meaningless to anyone else, frustrating to me." In the long run, memory may be the artist's most trustworthy record. "All of the images are burned into my retina," states Cunningham. "None of the images will ever be lost." Back at the studio, memories "recollected in tranquility" need conscious, technically astute interpretation in order to attain their most satisfying visual form. Space subjects are so rich, a lifetime spent refining and expressing remembered impressions would still be too short a span.

The direct professional impact of our space program experiences ranged from everything to nothing. I had never considered space as a source of stitchery designs prior to witnessing the launch of Apollo 17; but since then my work has changed drastically in subject, style, and technique. Miller, on the other hand, reports: "No perceptible difference. The Cape with all its hardware is the means to an end,



WAB - White Room

Workrooms move in from both sides,
clamp bird at middle.



but I've always been interested in the end more than the means." He still prefers his space scenes uncluttered by space ships.

McCall applies his experience in the most straightforward way, since accurate representations of real technology are one of his specialties. The eyewitness drawings he reproduces with brisk, almost intimidating ease are worthwhile artworks in themselves. At the same time, he is also storing up images from which to extrapolate future developments. This is also true of Di Fate, Sternbach, and Freas since their careers as SF illustrators require them to imagine tomorrow's technology. Freas put what he had seen during the Apollo-Soyuz tour to immediate use. His cover for *But What of Earth?* is based on photographs he took of Cunningham in a hard hat and includes a slightly modified VAB in the background.

But the most important and enduring effect of our visits to NASA installations, the effect we have all felt, is fresh inspiration. For instance, the opportunity of observing the Viking program ignited Cunningham like a torch. The Titan rocket's service tower at KSC, the misty Martian valleys and faint clouds seen in the JPL's view-screen show up repeatedly in his work now. He explains, "All my powers of imagination and extrapolation have been brought to the fore and rekindled by the excitement." Freff feels that other artists

would benefit as he did "from getting to lie in the couches of the Apollo Command Module and letting their hungers creep a little bit closer to the surface." Miller reports his enthusiasm was boosted by visiting the Cape, while Freas remembers new emotional worlds opening. "I regained my sense of self-esteem," says Di Fate, "and I learned never again to be ashamed of having a sense of wonder." We were stimulated, encouraged, refreshed—in short, renewed as artists. Thus McCall says of the space program, "It provokes ideas and thoughts that inspire you to do your very best." Everything we gave, in time, effort, and donated artworks, we received back a hundredfold in joy.

Exactly what did we see, hear, touch at Cape Canaveral that affected us all so deeply? What impressions are we still striving to transmit through our art?

The Cape invites artists' attentions simply as a physical environment—the sweep of its broad, low skies and layered clouds; its beaches, rivers, inlets, and brush-covered shores. The region's teeming animal life is oblivious to the presence of KSC and Patrick Air Force Base. Armadillos still scuttle and pelicans swoop as freely as ever. "That the launch areas could coexist with Merritt Island Wildlife Refuge is a real triumph," remarks Sternbach. Freas paid tribute to the balanced local ecology in his painting of a Saturn V's exhaust glowing through the outspread wings of a mallard drake.

Coexistence is downright casual at times: eagles nesting in a tree beside one of the Center's main roads; a heron sleeping on pilings at the press site, despite reporters' noise; the alligator mascot of KSC headquarters fattening on handouts from employees; egrets strolling nonchalantly under the lumbering crawler transporter.

The Center's intrusions are of no significance to animals, only to men. To our eyes, these space age towers rising out of wild countryside represent the future growing out of the past. Through art we can preserve that narrow interface between them, the ever-shifting present moment in which events occur.

A picture is a time-binding device that preserves the appearances and, more important, the emotional ambience of KSC's unique structures throughout their lifecycle. The earliest launch towers, simple rigs modeled on oil derricks, now rust away in the salty wind. Yet some scenes from their glory days will be remembered in the scores of lively eyewitness sketches that remain. Even in their present state of forlorn decay, they still have something to offer as visual subjects. An abandoned gantry could be the focus of a modern *vanitas* painting, an allegorical comment on the mortality of man, his

These doors, or
windows, slide up
one behind the other
and stack at
top



Doors
Slide
Sideways

VEHICLE ASSEMBLY BUILDING - where the work
begins. We're still two parking lots away

V.B. Truck at lower right is about 25% over scale

pomps, and works. (Freas actually made such a drawing entitled "The End of the Dream" in protest over space program cutbacks.)

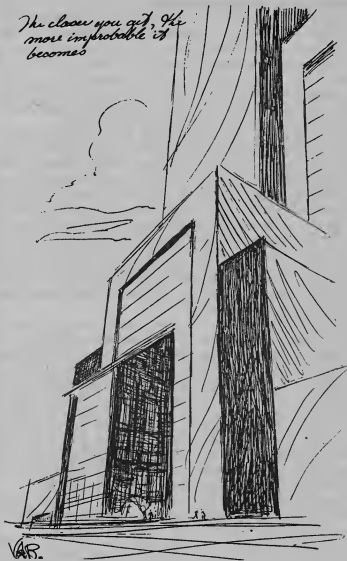
However, the new, fully evolved launch complexes are more rewarding artistic subjects. Each service tower is a red metal skeleton equipped with nerves and veins. It rests on a squat, trapezoidal base reminiscent of Mexican pyramids. When a mission is in preparation, the intricacy of the framework enhances the clean simplicity of the vehicle it supports. Impressive as it is by day, a working pad achieves its full splendor only at night when the shimmering rocket is robed and jeweled in light like a bride adorned for her bridegroom.

The lushness of this spectacle made it as great a favorite with us as with other artists. Nevertheless, it did not blind us to the more severe charms of the Viking Lander's white room. The pure, uniformly bright atmosphere required by the delicate operations undertaken there make such places environments so austere as to be anaphrodisiac. Our visit quickly induced feelings of detachment to the point of disembodiment. Our eyes became uncannily sensitive to all the subtle variations of white from creamy to wintry shades. The workers should develop a special vocabulary for "white" as the Eskimos have for "snow." The only relief came from the flesh tones of our exposed hands and faces and from a few small patches of screamingly vivid color on warning signs. (A collage of white fabric embroidered with different kinds of white fiber would be my way of depicting this chamber.)

If this stop was an adventure in color, our tour of the Vehicle Assembly Building was an adventure in scale. Or it might be more correct to say "lack of scale." There is no way whatsoever to grasp the size of the thing from the outside. Nothing nearby provides a useful yardstick for comparison. It is merely a large box. Descriptions of skyscrapers rolling through its doors or elephants passing through its windows are so many empty words. They only assumed some meaning after we stepped inside and were engulfed in immensity too vast to send back an echo. We looked up to the roof lost in the gloom of its own clouds. We looked down from the thirty-fourth level at tiny white beads on the floor below which were actually workers' hard hats.

Everywhere we looked marched patterns rank on rank, battalions of geometry in disciplined array. If the ensemble startled us, the separate components stunned us. Piers, beams, and catwalks that would have seemed too prosaic for comment in an ordinary factory setting were transformed into objects of awe by their size alone. Cunningham observes: "With monumentality you immediately get

*The closer you get, the
more improbable it
becomes*



impact. Think of Monet's large waterlilies. In addition to masterful painting, it's the size that gives the effect."

Good drawings and paintings of the VAB do exist but no one has yet rendered titanic architecture quite as well as eighteenth century printmaker Giovanni Battista Piranesi in his series of etchings, *Carceri d'Invenzione (Imaginary Prisons)*. We, like others before us, recognized *Carceri* as the VAB's visual counterpart. Nevertheless, there are significant differences. The VAB is a spacecraft-bearing womb, not a prison. Its daunting scale is simply an incidental by-product of function, not a means of disquieting viewers.

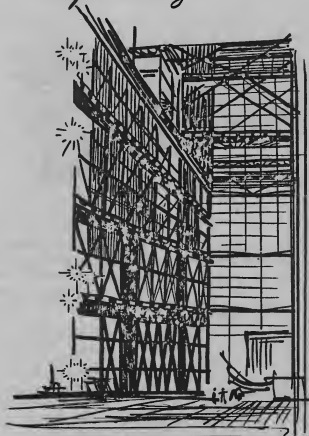
Function is likewise the determining factor shaping the intriguingly beautiful forms of space hardware. Cunningham remembers the Apollo-Soyuz Mission Orbiter: "That docking collar configuration was a piece of art—if you put it in a museum it would pass as a piece of sculpture." Again we were all struck by the diversity of available images, from the formality of control panels and circuitry to the random-looking tangles of wire and tubing. The huge jumble of boxy shapes that compose the Lunar Module Mission Simulator (nicknamed the "Train Wreck") looms beside a display model of the delicate LEM itself. The crawler transporter's brute strength contrasts with the incredible fragility of mechanisms inside the rockets it carries. Every niche in the ecology of form is filled by some device or other at KSC.

Yet none of this impressive hardware could exist without the people who design, make, and use it. Cunningham recalls "scientists and engineers reflecting so much pride in their accomplishments that their eyes glinted." To Freas, one of the most significant elements at the Center was the sight of "dedicated craftsmen who worked with the skill and care of seventeenth-century jewelers to bring their particular element to that degree of perfection beyond perfection they called 'zero defects.' It wasn't what they did that flipped me: it was the attitude." Theirs is a devotion not bought with coin, unflinching in the face of layoffs. "They talked the job," says Freas. "They were concerned with what was going to happen to the space program more than they were for themselves."

Of all the earthside space events chronicled by artists, from testing to splashdown, nothing matches a launch for drama. Or as Cunningham puts it, "A launch is like an orgasm."

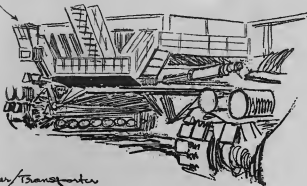
The emotional crescendo built gradually. The land around KSC is so flat, we first sighted the spacecraft while still miles distant. Driving closer brought us more and more under her spell. Once we reached the press site, her attraction had become so compelling that

The geometric and abstract patterns
are fascinating...



VAB "Hard Hat Area"
A pencil coming from the
top would not like a bullet

Drivers cab - there is one at each end, because the beast never turns around: it just goes out and back.

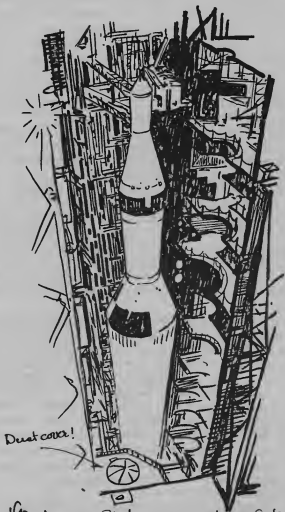


Crawler/Transporter

it was easy to ignore discomforts like hard bleachers, sunburn, cocklebur, and sandfleas. Tensions continued to build through countdown milestones and progress reports. The holds twisted it tighter. Then at last, she came "forth like the morning rising, moon-fair, sun-bright, terrible as an army with banners of battle." Here is the sound that tears, the light that stabs.

"Light!" exclaims Freas. "I have never seen such light. The very word 'luminosity' took on a whole new dimension. Did anyone but me notice the visual overload that turned the brilliance of the orange-pink exhaust flame to its polar opposite blue-green, and back again? Overstimulated receptors simply bugged out, turning the job over to their opposite numbers—but maybe it was only my eyes."

This is beauty that breaks upon the eye like pain or upon the spirit like revelation. Di Fate reflects: "As Apollo thrust itself outward, I could not but feel that we, this meager handful, were all that was left of our race that were still unafraid to dream. And the very act itself—this great expenditure of energy and the great outward thrusting into the unknown depths of space—was like an act of a half-sleeping mind, barely aware of the consequences of such an action. For a few moments time ceased for me and I was suspended in this twilight awareness, like a caveman about to discover



VAB - Apollo XV That cover is about 200 feet down...

fire and being unable to fully appreciate the total significance of that discovery."

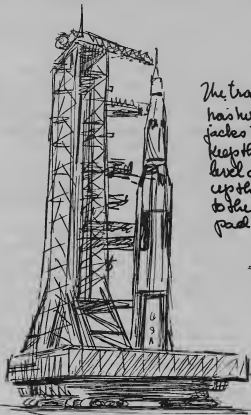
So profound is the splendor of a launch, it may be rightly called a numinous experience. It is a moment of mystical transfiguration that raises the spectator to new, hitherto unsuspected levels of reality. We who have seen a Saturn V engine ignite know why radiant light is the universal symbol of divine presence. Perhaps rocket exhausts are the man-made, scientific equivalents of the Biblical pillar of cloud by day, pillar of fire by night. Each of us had to decide for ourselves where this guiding sign leads but it expanded the very concept of awe for everyone fortunate enough to behold it.

Although each of us had some favorite sight, we all responded to the sublime harmony of the whole. There were myriad separate notes combined into one resounding chord—the land and its creatures, man and his works, all under the limitless sky.

Freff calls Cape Canaveral "the SF world's esthetic Mecca . . . the one place on the planet I have seen where Nature and Technology conspire to create balanced new beauties that neither alone could manage. It can be felt all around, like a seeming consciousness, as the spotlights cast shadows on clouds in *just* the right places, or as vultures drift on the wind, or the sun gives an abstract replay of a launch as it lifts over the horizon at dawn. To be there and to open yourself to it, is to stand in the living clockwork center of a fine old universe."

Others among us remember the slow hypnotic spirals of vultures wheeling overhead and the somber twilight land spread out below that made the roof of the VAB an oasis of unexpected peace. We saw a flawless composition of stars and crescent moon bracketing a lighted pad. We marveled at the thunderheads that rumbled, the meteors that fell, the clouds that drew aside like curtains when launch time came near. Nature lent a hand to dramatize man's first steps beyond this womb-world, to celebrate his birth into the larger universe beyond. Truly, it might have been said of such exultant moments that "the whole of creation is on tiptoe to see the wonderful sight." Or in Di Fate's words, "It seemed certain to me then that some universal force beyond our understanding was summoning mankind to its greatest challenge."

For years, NASA was sufficiently confident in our challenge-meeting abilities to open its facilities freely. Artists were allowed to work in an atmosphere of unprecedented casualness and intimacy. Prior to the scheduled and supervised ASTP tour, artists had usually just been turned loose at NASA installations to see whatever they could



The transporter
has hydraulic
jacks which
keep the bird
level as it moves
up the ramp
to the launching
pad.

That transporter doesn't look so
big after all.
We move gently - at 1 mi/hr.
Wing out - Apollo 15

persuade the staff to show them. Indeed, the success of the program—whether formally or informally organized—depended in large measure on the helpfulness of space program employees. The workers were overwhelmingly friendly towards the artists—especially the SF artists. They seemed to have found us more congenial charges than the foolish celebrities too often inflicted upon them.

Unfortunately, cutbacks in the nation's space effort after the last Apollo mission also affected NASA's fine arts program. It suffered further when its able director James Dean resigned to become Curator of Art at the National Air and Space Museum. Artists invited to witness the Voyager I launch in September, 1977 were denied the chance for a special tour on the grounds of shorthandedness. The disappointed artists declined NASA's invitation.

But the Space Shuttle program now underway is a new stage in the exploration of space. It offers fresh opportunities for artists to interpret technology, to reveal the beauty, excitement, and goodness of this latest human adventure.

These are the very qualities which the mass media, especially television, have never conveyed. By stressing jargon-laden recitals of facts at the expense of feelings, television has managed to make this grandest of human enterprises seem dull. Shouldn't as much video imagination be lavished on space missions as on a Sunday afternoon football game? Not even the personal enthusiasm of a Walter Cronkite can compensate for failures elsewhere. Without stooping to the level of propaganda, art could be a partial antidote, a means of reconciling the thinking self with the feeling self in the national psyche. By filling the emotional void in news coverage, a properly administered NASA fine-arts program could help insure that the reviving public interest in space stays revived.

Already there are signs that the opportunities will be seized. Not only have artists like McCall been recording the Shuttle's test flights, but NASA is making long range plans to put an artist in orbit. Eventually, someone will be allowed to seek Beauty beyond these skies on behalf of us all.

Until then, we artists are content with seeking Beauty in earth-side space installations. To have seen Her in those lofty vaults and towers, instruments' geometries, and rockets' sunburst glow, is to come away transformed. Whole new categories of imagery and qualities of experience unveiled themselves before us, and we absorbed some part of everything we saw. We were enlarged as persons—on every level of being. Even in memory, the sublimity of it all continues to drive our aesthetic talents to their limits, challenging us

to create even grander visions for mankind's future nourishment. The purpose of our work as speculative artists, declares Freas, "is nothing less than the growth and development of the human soul."

The voice of many thunders has spoken in our ears; the fires of awful glory have blazed across our eyes. Therefore we have been charged with a righteous message, given a vocation. The privileges we were granted have imposed a duty on us to communicate the wonderment of the wonders we beheld.

We artists have seen the Shuttle's mighty runway stretching mile on level mile. We are waiting to see that runway used. We all long to return and renew our commissions to dream.



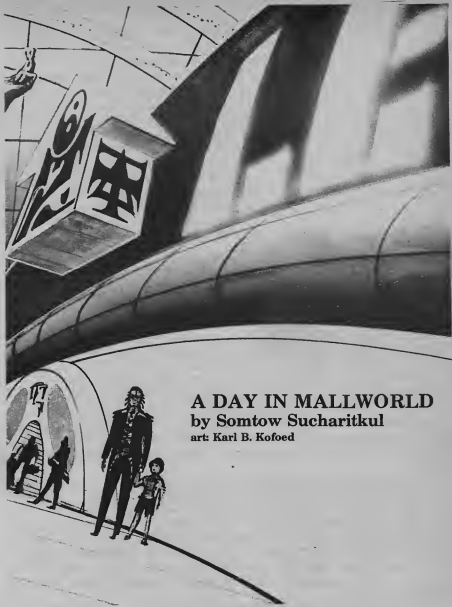
SOLUTION TO OULIPO ALGORITHMS, ANAGRAMS, AND OTHER NONSENSE (from page 48)

1. H.G. Wells, "The Country of the Blind."
2. Robert Heinlein, "And He Built a Crooked House."
3. Lester del Rey, "Evensong."
4. Arthur C. Clarke, "The Nine Billion Names of God."
5. L. Sprague de Camp, "The Command."
6. Isaac Asimov, "Nightfall."

Members of the Oulipo are fond of anagrams—words, phrases, or sentences with letters rearranged to make other words, phrases or sentences. Not many last names of writers will form anagrams of common English words, but some of the above will. *Wells*, for instance, has one anagram: *Swell*. *Clarke* has at least three: *Calker*, *Lacker*, and *Rackle*. *Asimov*, *Heinlein*, and *del Rey* seem hopeless, though *O del Rey!* anagrams to *Yodeler*.

Can you find a single-word anagram for *de Camp*? See page 97 for the answer.





A DAY IN MALLWORLD
by Somtow Sucharitkul
art: Karl B. Kofoed

In "real" life, Mr. Sucharitkul is an avant-garde composer who commutes between Washington DC and Bangkok. The last time he was in Thailand, a revolution happened while he was conducting an orchestra, but everybody just shrugged it off. He's been writing SF since the age of 10, when he did a fake Heinlein novel two pages long; now that he's 25, he's just sold two stories—to Analog and to this magazine. In his spare time, he tells us, he gives academic papers on that most recondite of subjects: 20th Century Southeast Asian Art Music, i.e., himself and his work.

Now:

Why would a lonely, unsatisfied, Bible-belt virgin teenage girl like me ever want to steal the family car, sneak off the colony, and teleport to Mallworld on the sabbath, anyways?

People have a lot of misconceptions about Bible-belt people. In the first place, we aren't even all alike; there's four colonies, three of them relocated L-5 ones salvaged from Earth orbit, the other one—the Catholics'—an asteroid like most other colonies. Our colony, Godzone, is a good mixture of Amish, Buddhist and Hare Krishnas . . . but I guess you "civilized" sophisticates wouldn't even know the difference. As for being in the boonies, Bible-belt's only point oh one of an A.U. away from Interworld, just one million miles, and that's nothing anyway, with the new teletransportations . . .

The biggest misconception of all is that we're freaks. Well: me, I'm not even religious. We live in a perfectly respectable ten-by-ten-by-ten six-person apartment, practice respectable birth control, only go to Temple once a week, have two cars (one long-distance one, of course) and a plot of land roofside. Apart from my plain saffron robe, you couldn't tell me from a Babylonian. I've got normal black hair, freckles, budding little breasts, regular periods, and a perfectly normal, un-outlandish name: Zoe McOmar.

And, just like everyone else in this whole godforsaken solar system, I want to *get out*. Well, here's the difference: *I am getting out*.

The Sunday before my big escapade, we were in church. My little brother was crunching on his algae bar, his robe all askew, in the back seat, as our car hovered in its assigned churchlane. The cars stretched all around us, and above and below as far as I could see, all the way up to the ceiling-floor of Godzone . . . and past the dashboard, past a couple hundred vehicles, the mile-high words were glowing:

MECCA/JERUSALEM/BENARES—TAKE YOUR PICK

The windscreen dissolved into a holo-image of Ashoka Toscanini, patriarch of Godzone.

"The scourge of the Selespridar has been visited upon us, miserable sinners!" he intoned. He was about six inches high (our car is an old model), and his black robes were billowing in the godwind and his hair was aflame. "Atone, atone!" he cried. "Else the Selespridar will shove us even further into the abyss of Hell . . ."

I must inform the ignorant that it is the belief of the patriarchs of Godzone—and of a few other misguided believers, or "saved ones," that mankind's unfortunate present setback was due to his past sins, enumerated in the *Karmadharmadevaphasa*, an epic poem composed by Jesus Christ back on earth, in his incarnation as the god Krishna in the Dark Ages of the twentieth and twenty-first centuries.

All the Godzonians I ever knew didn't believe a word of it; it was just a nice little myth . . . but the fact is, there is a great big barrier around the orbit of Saturn, a barrier that has thrown us into our own private little Universe until such time as "*homo sapiens* attains a state of civilized enlightenment."

. . . just at that moment, there was a holo of a Selespridon on the windshield. He was *unearthly* beautiful. They all are: sleek, tall, .998 humanoid, except they're a vivid blue all over, with sparkling, fiery magenta hair that quivers and catches the light . . . I had been studying them, and I knew that this one, with his three-tiered tunic, was Klutharion, governor of the solar system.

"And here's the very devil himself!" thundered the voice of Ashoka Toscanini. "It is these demons whom God has sent to punish us for our sins . . . repent, repent, you wicked children of sin . . ."

It was time for the litany. Dadmom whirled into action beside me, muttering in its mechanical voice: "Now, kids, say your prayers, like good children. Now, Zoe, now Amahl, be good little

kids..." I winced. My parents hadn't readjusted the cranky old nanny for ten years. I glanced sidelong; my real parents were in the car to the right, hands clasped in a religious attitude. They were zealots, which explained at least seventy-five percent of my dissatisfaction with life.

I closed my eyes tight and I saw the Selespridon in my mind's eye. He was ten times more beautiful than a rock star (and they all use blue makeup, I swear) and I wanted him so fiercely it was everything I could do to hold back my tears. It wasn't just lust, it was the injustice of us humans being confined to our own universe while *out there*, the Selespridar lived in some inconceivable glory, technological gods. I just wanted to *see* them. Maybe to touch them. It's really a damper on the human spirit, knowing you're in a cage, even if the cage is a spheroid nineteen A.U.'s wide.

I opened my eyes (mumbling my prayers the whole time) and looked around and saw the ever-so-orderly ranks of cars and the flashing letters in the distance and the idiot preacher, and I knew that I had *had it*. I was going to *get out*, somehow, and when you say *get out* with the italics in your voice, that means *getting out* of the whole cage, and the only way to do that is to persuade a Selespridon to take you, and there are no Selespridon facilities in the Bible-belt. I'd have to go to Mallworld... which is a shopping center thirty kilometers long, where they even have Selespridar sometimes, rich tourists, cultural anthropologists, administrators. Gawking at the natives. The trouble was, I was only fourteen, and I'd never been further than the Vatican.

The next Sunday I sneaked out of the apartment before Dawnbells and took our our long-distance car from the garage. I'd had my license for all of two days, and I knew exactly what to do.

I couldn't see a thing; the lights weren't on yet, and we don't have wasteful personal light-switches like on Mars or Gany-mede. I wasn't frightened at all. I'd worked myself up so that I simply didn't care about anything at all, anymore, only *freedom*. It was all turning into sort of a David and Goliath allegory in my mind...

Quickly I punched the co-ordinates for *outside*, then my father's credit card number, which I'd secretly memorized years before. The dashboard was all buttons and pictures; like all non-Bible-belt artifacts, it was designed for people who can't read like we can. An irrational worry hit me for a moment that the machine would

somehow recognize me and give me a good hiding, but after a few moments, the car crashed into the ceiling and dematted to the surface.

Just like that! I didn't even breathe, but just set a course for the nearest interport (for an off-belt destination, you have to transmat, obviously) and—

Then I really got scared. My colony was rapidly shrinking into a gray cylinder.

How could it all be so black! Weren't there any stars? There were always stars in the old holos, but . . . everything was totally black. It wasn't logical that there should be stars, but I always imagined space as, you know, before *they* came. It was brutal, the way the emptiness reminded me that man is *exiled*. I should have seen all the way out into infinity, and instead I was scrunched up into 19 A.U.'s of black, oppressive *claustrophobia* . . .

But I went on staring out of the screen. I was petrified, but I was fascinated, too. It was all coming home to me. The prospects of meeting a Selespridon and persuading him to take me out of captivity seemed more and more remote. I was ready to turn home in despair. But the less likely it seemed, the more I wanted to make the dream real. And it was the dream of all mankind, even of the sophisticates.

I caught sight of the Bible-belt in the corner of the screen. We were moving fast, though it felt like being absolutely still; the three cylinders, little silver slivers, were almost end-to-end at this distance, and the dumpy looking asteroid which was the Vatican was a misshapen pearl . . . like links from a broken necklace. It was pretty, and maybe I wouldn't ever see any of it again, either.

Then I made out a single star . . . it was reddish. Only Mars. And the sun, a tiny, bright little ball, and Jupiter ahead, only *just* a disc and brilliant white.

And then the circle of buoys that ringed the interport. I punched for Mallworld so the car would have time to compute the jump angle and velocity. The technology of all this was Selespridar, of course; they were always trying to improve the lot of us poor humans, easing the centuries for us while we were being made ready for something we couldn't even understand.

The car sprinted forward, I felt some high g's for a second, and then it thunked into the interport field and transmatted. I was in Mallworld space now.

Mallworld! The biggest shopping center of all time, where you can buy **ANYTHING** you could possibly imagine!

It looked just like Godzone.

There was the familiar cylinder shape, glowing faintly in the blackness. But as the car coasted in nearer I could see the enormous banners of stiffened plasticloth shooting out from the docking gates, in gaudy yellows and turquoises and crimsons, declaring:

WELCOME TO MALLWORLD—WHERE ALL DREAMS
COME TRUE
OVER TWENTY THOUSAND SHOPS
ONE MILLION CUSTOMERS DAILY FROM SOL SYSTEM
AND THE STARS

(Who the hell can read those signs anyway, I thought.) And I was speeding in to the parking lot, where the car anchored itself, deducted more money from Dad's account, and disgorged me. I had doffed my saffron robe—didn't want to look obviously hick—and was in my monomolecular pyjamas. It would, I hoped, look outlandish enough to pass as the latest fashion; and the iridescent peacock-blue did highlight my eyes rather well, anyways.

I fairly dashed into the airchute, which tubed from the lot into Mallworld proper, which was quite an eerie feeling because the tubes were made of the latest Selespridar material: nothing. It was the same force-shield principle that was locking mankind into its human zoo.

As the tube wafted me down the two or three kilometers into the world, I thought, bitterly: Nice aliens, throwing us choice bits of superior technology, scraps from the table, trader beads . . . (I know about trader beads because in Bible-belt we do Earth history, too; we're very old-fashioned and heritage-conscious.)

I was standing in the main hallway of Gate Five Oh Seven, and all I could do was gape.

I was leaning against a balcony, and looking up and down I couldn't begin to guess the number of levels in this place.

It was bewildering. On all sides of me an endless stream of people scurried briskly into little booths—how did they all fit? Oh: they must be the fabled mini-demat booths! No stairs, no elevators, no escalators! I was revolted by the energy waste, but then these were Babylonians: and each of them bedecked like the Christmas tree in the foyer of the Hare Krishna seminary. Fat women bulged with parcels; svelte ones were followed by automatic shopping bags . . . but how did you know where to go? I was

so frustrated I could have screamed.

"Well, where do I *find* anything?" I said aloud, in exasperation.

A six-inch high little man in a shocking pink uniform came flying through the air and hovered in front of my nose. I wanted to swat him, but he said: "I am computer simulacrum MALLGUIDE 22214037. You called?"

I was embarrassed for a moment, and then thought: "Well, it's only a machine," then said: "Well, I've never been here before!"

"Well, what do you want to buy?"

"Nothing. I'm looking for Selespridar."

"Well, we're not programmed for that, I'm afraid. Do you wish me to summon a more advanced model?"

"Er . . . no. Don't you have a guidebook or something?"

"Discontinued, miss. Who can read these days?"

"Well, where do the Selespridar hang out? Is there anywhere special, you know, native rain dances for the tourists or something?"

That remark went completely over the comsim's head, of course; I had to show superiority somehow, if only for my own benefit. Maybe I should buy something, I thought, slightly guiltily: spending money went against lifelong, inculcated habits . . . but I *did* have some of my own credit, actually, from last summer's job picking hops to make Gozbeer on roofside. I wondered how far it would go. . . .

"Miss, I'm telling you, I'm only a MALLGUIDE. For in-depth analyses you'll have to go to a paycomp and buy time on it. Shall I have one paged?"

"Er—no." (I multiplied the price of ten minutes' paycomp back home by three or four. I figured that that would be about right—and it was more money than I had ever seen. Of course, with the distance, there'd be maybe a minute's delay before my account rang red, but—)

"I see. Well, is there anything you would like to buy, in that case?"

"Well, I *am* hungry," I said. I hadn't had any breakfast. Then, I figured, a bar or cafe would be as good a place as any to start hunting for Selespridar. . . .

"Restaurant level is H46. Just tell the booth." He went fluttering off. Like a little fairy.

I managed to barge into the nearest booth, shouted *H46* at it, and was instantly somewhere quite different.

Instantly, signs were flashing all over:

EAT AT JOE'S
GENUINE ARTIFICIAL RAW FISH
WE SPECIALIZE IN ALIEN GOURMET COOKING

and a lot of signs in languages I didn't know, too. *Who reads all this stuff anyway?* I thought to myself. Most of the signs were visual, though, with a few oral ones screaming in my ears . . . and people, running everywhere, jabbering away . . . I didn't know you could feel so lonely with so much going on. . . .

Well, I really was hungry, so I thought I'd better play it safe. I'd no idea what any of the fancy foods were like. I once got sicker than a punctured p-suit, eating a genuine earthside egg. It was so disgusting, and when you think that it had actually come from *inside* a hen—No, it was home cooking for me. I walked right into it, a little side door in the corridor:

BUCKEROGEROO'S EAT-ALL-YOU-WANT STEAK HOUSE!

The *size* of the restaurant blew my mind, after those corridors. Three or four tiers of the place, and motor-booths whizzing through the air, and the six-inch simulacra of Earth-type cowboys on horseback reciting the menu to customers, and eye-wrenching lights everywhere. All humans, though. Not a single alien.

I was feeling very small, so I took a seat facing the wall. I held out my thumb to the cowboy who hovered over my shoulder, and opted for the regular. Then I picked up a knife and started to saw off a piece of the table.

Delicious . . . it was just like home. I started to relax a little, idly watching the familiar sight of the steak reconstituting itself out of the fastclone nutrient bath.

Now, what?

"Good day." I almost didn't look up. That deep, unearthly voice!

It was a Selespridon. I gaped at him. He was two and a half meters tall, blue as the old Earth sky, with that shock of purple hair flying free about his shoulders, and four tiers on his tunic. That meant he had to be even more powerful than Klutharion himself.

In which case, what was he doing here?

While these thoughts whirled around in my head, the Selespridon just gazed at me. It was really intense. I dropped my fork, and it accidentally turned on the motor mechanism and the booth began to levitate, and I didn't even notice. His eyes were so com-

pulling, so hypnotic. I don't wonder that this was how they conquered us in the first place. I wanted him! It wasn't a sexual thing. No, there *was* something indefinably erotic about the way I wanted him, but there was more: what he stood for, freedom and adventure and the wide universe.

"I . . . I'm Zoe McOmar," I said, feeling stupid.

"From the Bible-belt, I would imagine?"

"Wha . . . how do you know?"

"Only a Bible-belter would eat in a place as . . . as *tacky* as this one. And I assume, also, that you are a runaway . . ."

I was crestfallen. My type must be so common in Mallworld that anyone could tell straight off. Me and my big ideas! And now the booth was rotating slowly, jetting over the second tier of the restaurant . . .

"Do not be worried, little one," he said gently. "There are many runaways here, but few would have such an opportunity as you may have. For I have something you want, no? The power to get you off this godforsaken system, no?"

I looked up at him and I stared and stared and stared.

"Yes," the alien mused. "Humans do not take easily to confinement. I have not misjudged human nature. Even when that confinement is an entire solar system. Very dangerous species, very. Be that as it may, though—I think you could save my life. You would like to bargain?"

"But how? You're a fourth tier Selespridon, and I am only a human, and—" He was playing with me, I thought. Tantalizing me, taunting me with my own dreams. Because he had me now. I would do *anything* . . .

"Well, frankly, I am about to be executed. Tomorrow I must give myself to the authorities for a crime committed centuries ago. I am on quest, you see."

I nodded. It was a familiar concept. Selespridar who were of high status could accept a deferred death and try to perform a quest.

"You see," he went on (and I could not really fathom his emotion at all, he was so alien) "my crime was one of uncompassion, and for this, the penalty is to be cast into the black hole A'anakoitha, some twelve parsecs from my homeworld. I shall die immediately, of course, but . . . because of time dilation, I shall seem to remain, a tortured corpse, in the perimeter of the black hole as an example for schoolchildren, generations from now. This I could not allow, since my children would be subjected to much ostracism."

I didn't follow anything much of what he said, but he needed help, obviously. But more than feeling sorry for him, I was excited by what he was saying. He was tossing off black holes and parsecs as though they were nothing at all! And I knew that the official time period of a Selespridon quest was one *n'huat*, considerably longer than a human life-span.

So he was sort of a wandering Jew, or a Flying Dutchman, if you know your Earth mythology.

"What exactly is your quest?" I asked in all ingenuousness. "Redemption by love, or something?" This was a concept from the earthmyth, and, besides, the patriarch of Godzone was always on about it in his sermons.

The alien laughed. It was a hollow, desperate kind of laugh. His emotions could not be read; his face was beautiful as ever. Inside, I cried for him.

"It's a quest only given when they are certain the criminal deserves death. I have to find the meaning of life."

I stamped hard on the booth floor, which brought it whizzing back to the ground. "But that's ridiculous!"

"It's the nearest translation," he said. "What I mean is . . . *ug'unnieth*, actually, which means . . . well, people *have* been successful in it before, they *have* brought back acceptable answers, and since your system is such a labyrinthine repository of ancient truths and primitive things which we in our enlightenment have forgotten, I thought—"

"Well. Hocus pocus. You come here for magic, or something. Well, you certainly came to the right person! I *am* from Bible-belt, you know, I know all about the meaning of life or whatever . . ."

"That is precisely why I came into this restaurant in the first place," the Selespridon said.

"First," he said—his name was Zhangif, I had found out—"you must not remain in those pyjamas. I do not care, of course, but if one of the more fashion-conscious Mallworlders . . ."

We were strolling (*he* was; I was having a lot of trouble navigating) down a *crazi-gravi* corridor, corkscrewing from level to level and switching confusingly from gravi-up to gravi-down every five minutes. I was furious that he had noticed my pyjamas.

"I haven't any money," I said bitterly.

"As runaways go, you aren't terribly knowledgeable," he said. "By the B67 entrance, there's a place where all the runaways pick up tricks. You can always make credit."

"Of course I've heard of that," I said sullenly. "It's against my religion." Then, seeing how time was flying and if I couldn't find an answer for his stupid question I would have to go back home and probably never have another chance to *get out*—"Look, don't you want to work on your quest?"

Again the despairing laugh. "It is a matter of supreme indifference," he said loftily. "I have been on this quest for *centuries*. It is the equivalent of the death sentence anyway."

"But your kids . . . being made an example, perpetually dropping into a black hole . . ."

"Ha!"

(Of course! It came to me at once. Zhangif was in his *n'urdef* cycle by now, longing for union with his maternal cousins. As part of the almost incomprehensible Selespridon mating cycle, there were periods of intense manic-depression, I remembered from schoolwork.)

I'm never going to *get out*! I thought grimly.

"Let's get your clothes," Zhangif said listlessly.

We hopped into a booth and I asked for an auto-couture. I knew I wouldn't be able to handle a full-service store. I got something very quickly and he absent-mindedly thumbed the creditcomp for me.

I picked something conservative. None of these pornographic modern things where the breasts are all covered up to make them look lewd and *obscene*. I was so old-fashioned I was practically naked.

"Good taste," he commented. "The innocent little-girl look. Well, it befits your upbringing, I suppose."

Then he switched to a frantic, urgent one. "Quick, we have got to find the meaning of life, I'm going to die unless I do, woman, help me!" The manic aspect of his cycle had blipped on.

"I guess we'd better start with religion," I said slowly. "That's a nice, primitive thing. I suppose there's a church, somewhere in Mallworld?" I directed my question at the little pink man who had popped into being by my shoulder.

"One hundred cathedrals, six hundred forty-two chapels, and a Christian Scientist Reading Room," said the comsim smugly. "To which of these shall I direct the honored sir?"

Decidedly more obsequious, isn't he, talking to the Masters of the Galaxy, I noted.

"I guess I'll start with my own," I said. "Give me the level for neo-Amish-Buddheo-Krishna-ologism." (We just called it "the God

Stuff" at home, but I knew there was an official name for it.)

"Recreationist, Reformist or Reconstructionist?"

"I didn't know there were any sects. The Godzone kind, I guess."

"Reconstructionist. Innermost level. Take the cross-booth three down the hall to demat. It's nullgrav down there. Please thumb for magno-footware as you pass through."

Zhangif had already started, bursting with impatience. I watched as he walked, with an *animal* urgency I can't describe that made him so desirable, his violet mane flying behind him . . . he was a god. And he had the power to make me a goddess. I began to run after him. Not having to fake my way in pyjamas freed my mind. I felt I could do anything!

We dematted into a huge, perfectly spherical room with mirrored walls. Only a few people, and all of them reflected a million times in the smooth walls, the reflections tiny as little dolls . . . I found the magnoes in my hand and belted them on my feet. Wildly I grabbed for the Selespridon's hand—incredible presumption!—and we drifted to the floor-roof. Nothing new about the sensation, except being inside the vast, featureless bowl, feeling so tiny. I was awestruck, a little afraid even.

WELCOME, a voice sang, high-pitched and eerie, TO THE PERFECT CIRCLE OF RECONSTRUCTIONIST NEO-AMISH-BUDDHEO-KRISHNA-OLOGISTIC TRUTH.

"Wow," I whispered. "And I thought for once in my life I was missing church on the Sabbath."

"Quiet. You are sure this nonsense will give some insight into the meaning of life?"

THE SERVICE WILL BEGIN SHORTLY. GRAVITY IS BEING REDUCED TO NIL . . . FEEL THE WEIGHTLESSNESS AS A SYMBOL OF THE SPIRIT OF MAN UNDER THE PROTECTION OF THE DIVINE OM.

And now I really needed the shoes. Otherwise I would have floated away. I felt a little bit drunk.

Just then the Patriarch of Mallworld matted into the center of the sphere. I could only just see him, he was so far away, and he was upside down. He looked just like Ashoka Toscanini, our own patriarch. The resemblance shook me, even though I knew that all patriarchs were cloned from the original founder of our faith.

He began to preach in an impressive voice. The instant he started I knew this would be no good. The sermon was, word for word, the same one I had heard last week, about the evils of the

Selespridar! Every nuance, every turn of phrase, was identical.

"Cheated, cheated, cheated!" I stage-whispered to Zhangif. "And I was never told. The man's a robot or a hologram or something. I heard the same thing last week, and—"

"This is fascinating," said the Selespridon, never taking his eyes off the little figure. "Perhaps, perhaps indeed . . ."

I kept my mouth shut for the best part of an hour as the catalogue of diabolic Selespridarianisms droned on. If Zhangif could find what he wanted there, I wasn't going to disillusion him. We waited until the sermon was over; everyone had left long before the end.

Beaming, the Patriarch came floating towards us. I'd never been within spitting distance of one in my life, and here he was, breathing down our necks.

"A fine sermon," Zhangif said ruefully. "But . . ."

"My child, my child, I am delighted! But whatever are you doing in that sinful fancy dress?"

"Father, he *is*—" I said hastily.

"Just so, daughter," said the patriarch. "You are forgiven."

"Well, sir," I said (I kept thinking: *If this is a robot, its circuits aren't being all that logical*), "perhaps you could help this gentleman? He needs to know the meaning of life . . ."

The patriarch wheezed a little.

"It's—it's rather urgent, sir," I added.

"Ha! No one has asked me a *meaningful* question since I began here!" cried the black-robed one, levitating away from us in broad circles and waving imperiously to the vanished crowd. "You don't know what it means to me . . . on this commercial, Mammon-thrall'd Mallworld, questions of philosophy are no longer debated. No, no, a great evil has indeed descended upon us, my children!"

He came drifting towards us. Suddenly his expression became rather menacing. "But you seek to entrap me with your diabolical questions, you with your innocent, child-like nakedness, indicative of the lies of Satan himself—and you, in the garb of a Selespridon? My boy . . . this isn't Halloween, you know."

Just as abruptly he became solicitous, fatherly. He put his arms on both of our shoulders, and said, "Here. Take this tape—only audio, I'm afraid, what with the church's impoverishment, hard times, hard times—and listen well. A quarter-credit will automatically be deducted, the room has read your thumbprints. It is the *karmadharmadevaphasa*, an epic poem composed by an avatar of Jesus Christ himself, after he won the epic battle against St.

Joseph Smith the Apostate. *You* do not need the meaning of life! You need spiritual guidance. However, you are forgiven—forgiven—forgiven—forgiven—

Father Ashoka (as I kept thinking of him) quickly shrank to the size of a demat-control-knob, then fluttered off, muttering "malfunction, malfunction," in a metallic voice, then dematted completely, leaving us alone in the huge chamber.

"Overload," I said.

The alien, talking mostly to himself, said: "No, no, this isn't it at all . . . when at first he was talking about the problem of evil, and the moral aspects of the Selespridon presence, then I almost got something. But the concept of *ug'unnieth* . . . ah, *ug'unnieth* . . ."

"Well, what exactly *is* this concept? I mean, if you explained it to me, perhaps I could help you better. I know about humans, but I can't figure out your unearthly concepts without some kind of help, you know."

"More broad-based," he said, "more universal, somehow, more reality-oriented. You know? *A'anuuk glemeshtoforsht, ang n'passmolokhian sarod* . . ."

"Excuse me," I interrupted. "If you'd tell me in *English*, I think I could help, really!"

"Well, that's just the problem, little one. If it were translatable into your crude speech, I wouldn't need to be looking for it. That's one of its primary characteristics. But rest assured, I shall know it when I *do* see it."

We spent the next few hours exploring various religions. The Zens assured us that there *is* no meaning of life. I thought that was a pretty nifty answer, but the Selespridon didn't buy it. "Of course there is," he said. "Otherwise, why should I be searching for it?"

The Catholics—where we ended up—well, their cathedral was quite astounding. The Pope herself lived nearby; a recent Diet had decreed that the Church of "Rome" must become more commercialized, and what with the bombing of Italy on old earth, what better location than the greatest shopping center in the Solar System?

The whole thing was a holoZeiss projection, a landscape of heaven, so you saw clouds that seemed to stretch off into infinity, and *thousands* of simulated choirboys, each with electronic sitar or ancient synthesizer, warbling away like so many angeloids.

We caught a couple of self-lighting candles as they zeroed in on

us, and he was looking around curiously waiting for something to happen, but I was just enchanted by the sounds. I'd heard of the ancient singers, you know, Maria Callas and Donnyandmarie, the so called "duo of truth," but I doubt that even the classics could be more beautiful . . . and the way the image of the Pope, naked as an innocent child, clutching the Christ child in her bosom, wafted so gently through the sky, so huge and comforting . . .

On Godzone things are so unsophisticated. This almost made you *believe* in religion.

"This won't do!" Zhangif said, throwing his candle into the *crazi-gravi* corridor as we stepped out.

The gravity field made the candleflame dance and it flew upwards, ahead of us, out of sight.

"It is almost what I need," he continued, "but alas, I recall that in the case of Nakulleh the murderess, who embarked on a quest before me, the Earth Catholic Religion was denied by the Council as an example of the meaning of life . . ."

"You mean people of your race come to Sol System on quests often?"

"Well, obviously, child! It's only the most barbaric place in the Universe, with more ancient wisdoms and hokey half-truths than anywhere else . . . I am beginning to suspect that the only reason the Council keeps your system isolated is to provide quest material—"

That hurt. I was furious with them all. They were as bad as the patriarch said they were. Suddenly I felt a blind rage against every Selespridon in the Galaxy. They *used* us. Lower being or not, I had to *get out* now. I had to show them all that a human being wasn't just a piece of space offal.

"Well," I practically yelled, "what am I supposed to do now? You can't even explain to me what you want, and you think us humans are too dumb, anyways, and we can't understand any of your highfallutin' 'concepts'—"

"Of course you're too dumb," he said. "You're a race of perverts—murderers—cannibals—loonies!" He was trembling with rage, and he was so beautiful, and I was being torn apart by hate and desire.

We halted in front of a booth.

"Well?" I said.

"I understand that in your system mating rituals contain a lot of *ug'unnieth* . . ."

"Oh, that!" I was red to the gills, suddenly. "Well—" (Hell, I

thought, I'm a progressive and won't do it with someone I don't like, even if the Church has culled it.) "I've never done it, you see, I have no experience with that sort of thing."

"Oh. I was thinking you might demonstrate."

"Sorry, Zhangif. What else is there I can help you with...? Give me some more ideas on this *ug'unnieth* of yours."

"Well, these religions of yours are all very well, but all unenlightened cultures have them. It's hard to describe *ug'unnieth* in your limited speech modes, but perhaps... something a little more... ethnic?"

"Oh. Drugs, maybe," I said listlessly. "Some of us think they can show us the meaning of life..."

And that's how I found myself dematting into a Place I Had Promised My Mother Never To Set Foot In. A veritable den of iniquity. A cesspool of vice.

It looked exactly like a hospital. There was a small room, oblong, crowded with about a hundred people levitating in various positions, like twisted mannikins thrown into free fall. I don't know how they managed to avoid each other; presumably they were still subliminally aware of their surroundings, even under the influence...

"Oh, this is the Levitol room," I said, trusting that I sounded worldly enough. (It wasn't hard: sometimes the school lavatory was just like this room here.) "We even have Levitol in Godzone. I imagine you'd need something a little stronger."

A couple locked in a frozen embrace came barrelling towards us, then cleverly deflected upwards into a figure-eight around two suspended little boys, who were too young to be there and whose faces had petrified into guilty grins.

Ignoring all these familiar sights, I said: "What you need is to try one of our mind-expanders... but... ethnic, too? The Acid Room, I guess."

He was oscillating now, faster than before, between fits of moroseness and hyperactivity. If he didn't mate soon, I didn't know if he'd even survive. I pulled him quickly past a long row of Self-Involvement Cubicles, through another Levitol Room, and he was muttering dejectedly to himself the whole time in his alien speech.

We came by way of a labyrinthine Reality-Simulating Corridor to a sign that said, in a seductive voice, FIND THE MEANING OF LIFE HERE!

"That's us," the Selespridon said, suddenly agitated.

LITTLE ROOM AT THE BACK, PLEASE . . .

The purple hair was standing on end, the alien was shaking violently all over, a wildly erotic odor was emanating from him—trying to ignore all this, I said: "Now this is about as ethnic as you'll ever get, Zhangif. This is from Old Earth, you know, no less, and as such must be unimaginably ancient . . ."

(What a kid I was! "Unimaginably ancient?" Why this specimen had probably been born before the first space flight!)

Sure enough, the little comsims that emerged from the room and were now swarming around us had afros, jeans, and dirty T-shirts. They simply *exuded* millenial wisdom, like little Apollos, Mohammeds, or Kennedys.

"Well, Zhangif, shall we go on?"

"Ah . . ." he sighed. We followed the swarm into the little room, which turned out to be an ancient receptionist's office. And there was a real human sitting there, lending the whole thing a very authentic atmosphere. She did look a *little* strange, though, since she had a vestigial head cosmetically implanted in her neck.

Obviously from Babylon-5, I thought. Richest colony, hollowed out of Deimos. I stared at the head, trying to compute how much it would cost to get one myself.

"What are you staring at?" she said. "Oh, that," she chuckled pleasantly. "It's my little brother. You see, Storkways Inc. messed up the delivery, and this was all they could salvage. You find it disturbing? I don't find it at all disturbing. Everyone around here—"

Her eyes went wide. "You're—a Selespridon!"

She crawled out from under her desk and began to worship him.

"It's plain to see what religion *she* is. A ufologist," I snorted. "Look, we don't have time, and my friend here needs to know the meaning of life."

"Oh, I am so blessed by your visit, sir . . . an attendant will be with you in a moment, pray sit down . . ." Two chairfloats came down from the ceiling, and Zhangif and I began to relax. A couple of humans in Old Earth costumes—one in a business suit, another in a kimono—came in with hypodermic syringes.

"Not me," I said hastily. "Just the Selespridon here."

The two went over to his chairfloat. The secretary-receptionist began to give her standard lecture on the history of psychedelic drugs.

"The use of 'acid' is a very ancient Earth practice used by questors after meaning. Introduced to earth by a sage whose

name has come down to us in various forms as Tim O'Leary, Zeus, and Oscar Wilde, 'acid' was originally a highly dangerous organic compound. However, in today's journey into the halls of truth, you will be using a milder derivative of that compound. No other detail of the ancient ritual has been altered . . ."

Was this a hypnotic, ritualistic monotone—or was this simply a very bored, boring person? I could not tell. The room became dark; the two simulated Ancients hovered menacingly over Zhangif's chairfloat, their olden garments glowing softly in response to some ultraviolet light source (as though in an ancient "disco," I supposed). The receptionist droned on, giving the history of the drug, its empirical and structural formulae, its repression by the Earth Government during the Dark Ages, and many other facts known to all. The hypodermic syringe, I learned, was only an "authentic" fetish; the drug was administered orally.

It was all very soporific. I found myself drifting off, and the darkness grew deeper and warmer and more comfortable.

Zhangif was screaming.

I leapt off the chairfloat, on to my feet and shouted "Turn on the lights, someone!"

"I've been poisoned, I've poisoned . . ." The lights burst on, blinding me for a second.

I hadn't even asked him if the compound would be toxic or not. "You really are as dumb as the aliens say," I told myself, watching the Selespridon writhing in agony, watching the three attendants running this way and that in a hurry, and finally leaving us alone, abandoning us. Now I was really in it. If I'd been responsible for the death of a Selespridon . . .

"Quick . . ." he gasped. "A lavatory, I must regurgitate, or I will die, quickly . . ." I helped him down from his chairfloat and held his arm. We struggled out of the Escape Parlour, out on to the corridor. He was heavy as anything, and I was practically lugging him. A sweet odor rose from me where I had touched him . . .

Where was there a bathroom in this place?

EVERYTHING FOR THE WELL-GROOMED ANDROID, screamed a sign. I pulled him on. We staggered down the corridor together. I felt like crying, I was so frustrated. I yelled out, "Comsim, comsim, mallguide, somebody . . ."

YOUR HOLOGRAM IN TWENTY SECONDS
A COMPUTER-CHARACTER INDEX OF YOUR BELOVED FROM
A SCRAP OF TISSUE!

And then, abruptly, total darkness and silence. For ten or eleven seconds . . . I held my breath, feeling the weight of the Selespridon against my shoulders.

The lights went on. People flew by, jostling each other, falling over each other, screaming.

ANNOUNCEMENT. TEMPORARY POWER OUTAGE, thundered a deep voice over the tumult. EMERGENCY LIGHTS NOW ON. STAY IN YOUR PLACES, PLEASE. COMSIMS WILL RETURN TO DUTY IN ABOUT TWELVE MINUTES.

I was terrified. Now there wouldn't be any signs. None of the signs were talking anymore. People were walking past in a complete daze. The stores with visual signs were all right, people would recognize the pictures or holos and go in, but . . . the murmuring of humans without machines was different, eerie. I'd never heard it before. I felt the alien against me, gasping, his face turning from blue to a steel-gray, and I thought . . . if I don't get to a bathroom now, he'll regurgitate on the floor and I'll get caught and sentenced and sent home and—

There was a little manual door to my right . . .

To my relief, it said "LAVATORY" right on it, in English, in *writing*. Thank God they hadn't obsolized the bathrooms! I pushed the door open and shoved the alien towards the nearest cathartic tank, clutching his hand while he—

Minutes later, he was his old, oscillating self again. We stood in the corridor. I looked at him wistfully. The sounds of Mallworld, power restored, hummed around us.

I had failed, I would have to stay in Mallworld forever, like every other runaway, become a child of the corridors . . . already I felt like I had lived in Mallworld my whole life. Home had faded completely.

"Well," I said, "I guess I tried."

The alien was in his dejected mood. "Yes. Now, in only an hour or so, I will return to my homeworld and turn myself in for the death sentence . . ."

"Well, goodbye."

"Wait . . . before you go . . . can I ask you a question?" said the Selespridon. "When all the signs went off, how did you manage to find the bathroom? I mean, do you humans have some instinct for self-relief? Is there some primitive homing mechanism?"

"Oh, no. I just read the sign," I said irritably. I wanted him out of my sight. I wanted to get used to being a Mallworld stalker.

"Read? The concept is unfamiliar. What precisely—"

"You mean you can't read?"

"What is this 'read', then?"

"Listen!" I said, pointing to one or two signs that were in writing. "AUNT ABEDAH'S MONOPOLE SKATING RINK... PSYCHIC PROBES: LICENSED... ARE YOU DEAD? REVIVIFICATION POSSIBLE!"

"... incredible!" said Zhangif.

And then I just laughed and laughed and laughed. "You mean—you aliens, with your fabulous technology, with your Galaxy-ruling powers, with all this—you can't even *read*?" Then I had it. "I've got your 'meaning of life', Zhangif! If this doesn't convince your council, nothing will!" And I tugged at his arm. He followed me, still depressed, and I waved to a pink comsim.

"A bookstore," I said. I knew how to order these things around now; I wasn't the scared little girl of a few hours back! "I suppose you're going to tell me you have four thousand of them in Mallworld."

"Regrettably, there are none, miss," said the comsim, settling on my shoulder.

"What do you mean?" My heart was pounding. After having solved the alien's riddle...

"Perhaps you might find a book at one of the antique stores on level A1. That's the oldest level in Mallworld, you know..."

And we were off.

It was little more than a cubicle, with heaps of junk piled higgledy-piggledy all over, and one little man tending everything. "What do you want, kid? This is for museum collectors only... oh, beg pardon, sir," he said, as the Selespridon followed me in.

"A dictionary," I said.

The old man looked at me, completely taken aback, then beamed. "My dear girl...!" he stammered. And then he pulled out an honest-to-goodness *book*. "It's a genuine, twenty-first century *Shorter Oxford English Dictionary*, honored Persons," he said. "It will make a wonderful doorstop, or a *pièce de résistance* on a tea table, or—"

"I'll take it," I said quickly, and Zhangif solemnly thumbed the paycomp. I picked up the thing... it was very heavy... and turned to the entry for *life*.

"See here," I said... Zhangif peered over my shoulder, mystified. "LIFE: the condition or attribute of being alive, living. Op-

posed to death." I read out the entire definition, and added: "And this thing contains the meaning of every other word there is, too."

"It's astounding!" cried Zhangif. "How is it done? Telepathy? Mortification of the flesh?"

"No, no, silly... these little marks here represent *words*. A long time ago, everybody could read. But then they invented something called television, then something called holovision, and now only Bible-belters learn it... it used to be the only way of disseminating knowledge, fancy that!"

Zhangif picked up the book and thumbed through it.

"It's upside down," I said, laughing.

"Well," he said, "it is certainly new. Lost arts of the ancients, my word... undeniably ethnic... ritual fetish... crystallization of universals into paper-ink symbology... little one, you have saved my life."

"They'll buy it?"

"My girl, this is purest *ug'unnieth*! Already my spirits soar. You have earned your trip to the stars..." and he flipped into his hyperactive state, and I had to run to keep up with him, up the corridor and into the dematting booth and into the air-tubes and into the carport and...

"Close your eyes."

I felt motion. I was strapped into a car of alien design, everything in the wrong place. I shut my eyes tight. I was happy, not only because I was *getting out*, but also because I had known better than the aliens, I had won a small intellectual victory...

We accelerated. "Now open them," he said quietly.

I did. His odor was stronger now, so enticing. I hoped he could hold out until he arrived at his world.

I looked out of the screens, and saw—and saw—

How could there be so many of them?

The stars were everywhere, I could have died with crazy laughing, I couldn't believe it could be so beautiful... and it was all happening to *me*, Zoe McOmar, a little hick teenager from nowhere!

It was really *neat*.

THE MOVER

A local mover

who offers door-to-door service
for local and long-distance moving
was bragging about his exploits.
Not only was he the "best damn mover and rigger
on this side of Betelgeuse"
but he's also "been around."

According to him,
his experience goes "way back to the beginning"
when he helped sort, pack, and crate
the universe into an organized and coherent mass.
As far as he is concerned
the whole cosmos should thank him
for his immeasurable services!

Now with that out of the way,
not only does he do local furniture moving
with the most modern packing methods
but he also handles the big stuff:
stars, solar systems, and galaxies.
All with his 18-wheeler, of course!

In the early days
when he first started out,
before the universe expanded,
it was much easier to "make a buck."
You could push the rig as fast as it could go.

But today with the new laws
of gravity and light,
legislated against the rigger
to hold down speed and save energy,
it's getting tougher to make ends meet.

I wondered
from the way he talked
if he was there before the beginning
when the world was dark and void
and without form.

Most certainly
he must be the *Prime Mover*
who in some inconceivable way
set the dimensions of time, space,
and matter into motion.

He responded
with a belly laugh.
I am most certainly mistaken.
Does he look that ingenious
or that old?
No, he was only the assistant.

The *Prime Mover* was his "Old Man."

—Peter Payack

SECOND SOLUTION TO OULIPO ALGORITHMS, ANAGRAMS AND OTHER NONSENSE (from page 73)

The anagram for *de Camp* is *Decamp*.

If that caught you off guard, and you cheated by looking at the answer, here is a marvelous new anagram discovered recently by using an anagram computer program written by one of the hackers in the computer science department at Stanford University. What common eight-letter word, in every English dictionary, is an anagram of *Pictures*?

If you give up, you can get the answer by sending a stamped self-addressed postcard to the editor of this magazine.

SCIENCE FICTION
analog
SCIENCE FACT



*half a century of the
finest science fiction for the
one person in a thousand
who is capable of perceiving
a changing future*



THROUGH TIME & SPACE WITH FERDINAND FEGHOOT!!!!

by Grendel Briarton

art: Tim Kirk



After the Children of Israel had wandered for thirty-nine years in the wilderness, Ferdinand Feghoot arrived to make sure that they would finally find and enter the Promised Land. With him he brought his favorite robot, faithful old Yewtoo Artoo, to carry his gear and do assorted camp chores.

The Israelites soon got over their initial fear of the robot and, as the months passed, became very fond of him. Patriarchs took to discussing abstruse theological problems with him, and each evening the children all gathered to hear the many stories with which he was programmed. Therefore it came as a great shock to them when, just as their journey was ending, he abruptly wore out. Even Feghoot couldn't console them.

"It may be true, Ferdinand Feghoot," said Moses, "that our friend Yewtoo Artoo was soulless, but we cannot believe it. He must be properly interred. We cannot embalm him as do the Egyptians. Nor have we wood for a coffin. But I do have a most splendid skin from one of Pharaoh's own cattle. We shall bury him in it."

Feghoot agreed. "Yes, let this be his last rusting place."

"Rusting?" Moses cried. "Not in this dreadful dry desert!"

"Ah!" sighed Ferdinand Feghoot, shedding a tear, "I fear you do not realize the full significance of Pharaoh's oxhide!"



IRON MAN, PLASTIC SHIPS

by L. E. Modesitt, Jr.

art: Val Lakey



Mr. Modesitt tells us he's been a life-guard, news announcer, disc jockey, Navy helicopter pilot, market research analyst, real estate salesman—and is now a legislative assistant. He has a short, handlebar moustache; stubby fingers; prematurely gray hair; and a black typewriter.

"So what it boils down to, Mort," McCaine said quietly, "is that you want me to approve the RV-2s immediately and use them to replace all the old tugs ASAP. Period. Don't bother about the fact that the RV-2's not a good space tug. Don't bother about the fact that it's poorly designed. Don't worry about the lack of flight testing. Just approve it. You say the damned thing's a new Recovery Vehicle and we ought to use it. I say it's an experimental pilot killer."

Even at the end, Captain (breveted and acting) Edward Alton McCaine did not raise his voice. But somehow the small station room vibrated unpleasantly. A paperweight teetered on the edge of the Captain's compact desk for a moment before beginning a slow curving arc toward the boron-flexiplast desk.

"Captain, we need new tugs. The RV-1s are old. They're just so much junk. If we could just replace them with the RV-2s arriving with the convoy..." Morton Wyemouth, Commander Second, Darneillian Space Forces, stood very still in the light gravity of Primus Station.

Even as far from the tech spaces as the Captain's small office/stateroom was, the two men could smell the combination of ozone, oil, and sweat that permeated the battle outpost.

"New is not necessarily better, Mort. Nor space-worthy. I intend to test every one. If they don't measure up, back they go," declared McCaine.

And if that doesn't set the stage, he thought, I don't know what will.

Captain McCaine leaned back in the cheap flexiplast swivel and popped a chewball into his mouth. He brushed the mixed silver-blond hair back over his high forehead, not that there was much to brush back, and looked steadily at his executive officer.

"We're using junk to salvage junk, sir," answered Wyemouth. "We're losing men doing it. Last tour, Debron, and the rotation before that, three—Ferinto, Hawke-Gones, and Brereton. At least

the RV-2s are new."

The captain sat up straight in the chair and put his hands flat on the desktop. Even motionless, his squat form seemed ready to spring.

"Mort, I've explained it so many times to the High Command I'm green along the jaw, but I'll repeat one thing. The RV-2s aren't new. They're a pile of reworked plastic, hopped-up thrusters, and converters with extra slosh. Tech Command used the RV-1 salvages we sent back for rework as the frame."

Wyemouth had his mind made up, and McCaine looked coldly across the desk in the cramped compartment, stifled a sigh, and waved the commander out the hatchway with an abrupt gesture.

As the flexiplast portal clicked shut, and it seemed like the whole station was constructed of plastic, he leaned back into the swivel.

Didn't any of the gung-ho, can-do idiots understand? Do it, no matter what. That was why four pilots and techs were dead in two tours, not because of the Macedonians.

He tapped a button on the console that covered the left third of the desk.

A tinny voice buzzed from the grill, "Tech."

"McCaine here. If Commander Haskins is available, I'd like to see her."

"Roger, Captain."

McCaine pulled the spec sheets from the drawer. He'd brought them all the way from Tammerlane. Bouncing over to the inner bulkhead, he began to hang them with stick tabs.

How much should he tell Lyn, he wondered.

The station shivered, probably from the lock-to-lock hook-up with the first freighter of the resupply convoy. McCaine could hear the whole station creak, from his own walls to those of neighboring compartments.

Commander Haskins was grayer than McCaine, almost as tall, perhaps a year or so older, and stuck until retirement as a commander, blocked from a line slot or the hawks of a captaincy by her sex. Now a senior commander-second, she might make commander-first on retirement...if His majesty were feeling particularly generous.

Most of Lynda Haskin's short hair was white. The rest was jet black. Her spacetanned face and dark eyes gave her a look of old wisdom, except when she laughed. That was often. He and Lyn had laughed and cried together a lot. Neither had family, not to

speak of, not after the years in the Space Forces.

"The RV-2s are on the in-convoy, Lyn."

"You didn't expect anything else."

No, he hadn't, and in the off hours before their joint departure from Tammerlane weeks ago, he'd said as much.

"I can refuse to use them."

Lyn was still standing. McCaine gestured at the only other seat in the closetlike compartment. On duty she was always the formal Commander Second Haskins.

"Great, and if you refuse without a reason," she noted calmly, "you'll be replaced with someone like Mort Wyemouth or Handsome Saint Prince John, who'll start losing pilots and techs at the rate of one per watch." Lyn eased herself into the small chair. She was always graceful in a spare way.

McCaine grimaced, turning the left corner of his narrow mouth up. "I know. The concerned and heroic refusal doesn't do anything but clear the last obstacle from the paths of the cost-effectiveness boys. Their charts are never wrong. They just kill people."

She felt the same way, McCaine knew. She was on the station for the same reason he was. Both had been on the Royal War Ministry developmental staff. Both had protested the deployment of the RV-2, and both had been posted to Primus.

McCaine stood up easily in the fractional gravity and half-walked, half-bounced to the wall where the plans fluttered under the ventilation grill.

"They've doubled the fuel storage here by extending the slosh tank. The extension's supported by these braces . . ."

"Fine if you're flying without a trac load under constant gee, but . . ." The commander let her words trail off.

"Is the extra mass compensated against sudden thrust or a load shift on the mag-trac?" McCaine asked.

"The RV-1 can handle its full mag-trac from zero to max at a quarter-gee constant. The tech team figured that as a base parameter on the conversion." Lyn delivered the statement deadpan.

"But they upped the mag-trac by eighty-five percent and damn near doubled the thruster output. That's got to drop the load the frame can take."

"According to the tech manual," drawled the commander, a wry smile on her face, "the same parameters apply."

"But I'll bend the frame and crack the shell if I try it?" snapped McCaine.

Maybe I shouldn't let that much out, he thought.

"If you try it? You're the C.O."

McCaine wondered at the look that flashed across her face, but went on. "According to the regs I can take a mission. Any C.O. who's physically and type qualified can, and I quote, 'when in the best interests of the Space Forces and the safety of his command.'" McCaine smiled. He meant it to be a nasty smile. "I was sent here to supervise the service introduction of the RV-2 because I was the only captain with salvage experience. They also didn't want me around Tammerlane when the casualty reports began to come in. I might just suggest that the RV-2 wasn't all it was cracked up to be." He looked vaguely pleased with the unintentional pun.

"I never quite understood why they sent you here." Lyn crossed her long, ship-suited legs, shifted her weight, and turned to face him head-on. "But then, they don't know you like I do."

McCaine kick-bounced himself back into the swivel. "You understand, all right. They don't care about me. They don't care all that much about winning the war. They don't care too much even about getting their icebergs home. But they don't want any advice from someone who's actually jockeyed space-tugs.

"They don't understand salvage. They don't understand how every loss affects the whole future of Darneill. And they certainly don't care if a few salvage pilots get killed. If I refuse to fly the RV-2, well, then I become an object lesson at my court martial. Lesson One for new captains—don't cross the Finance Ministry, even if you are stuck with a bunch of plastic ships."

He popped another chewball into his thin-lipped mouth. "If I let the RV-2 go into service, then that proves their power. If I don't, I'm court martialed for insubordination, maybe for aiding and abetting the enemy. They're covered even if I allow the damn thing in service. If their beloved new and improved all-plastic RV-2 kills too many pilots, I'll get the long green table for poor leadership . . . or a medical retirement with honors."

Lyn Haskins gave him a faint but fond smile and let him go on. He'd stop in his own good time. He always did.

McCaine sighed, grabbed a handful of papers, and held them up. "What am I supposed to do? Administer a disaster? Go on with the day-to-day nuts and bolts, and smile? Sure, we need a stronger Recovery Vehicle, but the Finance Ministry doesn't want to put out the energy, the money, or the metal. Don't ask me why we're fighting the Macedonians over water asteroids when they

don't even need them. Don't ask me why we're using as much water to fight as we're getting from the bergs. And don't ask me why we have to kill pilots to find the design flaws. No . . . the glamour and the money go to the skitter pilots and the engineers. We just rescue them all and keep picking up the pieces. For what? I could go on, but you've heard it all."

Commander Lynda Haskins got to her feet, again perfectly formal. McCaine sometimes asked himself if he knew her at all.

"I'd better get my people ready," she said. "Tomorrow?"

"They may be unloading already. Do me a favor, Lyn. Make sure I only get the RV-2s one at a time and that everything's done strictly by the book, and logged."

"Roger."

McCaine watched her go. He and Lyn had been stationed together five years now, on and off. He wished there had been more "on" times, but that didn't happen in the Space Forces. How many times he'd wanted to say more to her . . . rather than talk about ops, share a drink, stories. . . .

He picked up the stack of papers, the maintenance reports, the officer evaluations, and forced his thoughts away from Lyn, away from the RV-2. Tomorrow would come soon enough, and the endless reports had to be filled out.

"This is most unusual, most unusual." The station schedules officer was a Commander Second, non-pilot.

"We'll be in the salvage ready-room," said McCaine.

"Captain, really . . . Rory, the admiral, I mean, will be most concerned about the salvage skipper and his senior tech riding the same tug."

McCaine noted the affected speech and decided it and the immaculate uniform tagged the schedules officer as another Court hanger-on out for a Belt medal and stories for the king's courtesans.

"We'll be on duty. You have the revised schedule," McCaine said curtly. He knew the schedules officer would take the updated duty roster straight to the admiral.

The cramped salvage ready-room was connected to the duty lock where the duty tugs were docked. McCaine entered the ready-room just in time to hear the small squadron operations console squawk.

"Captain McCaine to the Flag Bridge. Captain McCaine to the Flag Bridge."

McCaine grinned at Lyn. Her lanky frame was stretched out across one of the five patched recliners in the small, flexiplast walled compartment.

"Didn't take him long, did it?" He walked over to her.

"Captain, play it straight, very straight." Even with the formal address, the "please" was evident in her tone.

"I will."

His stride was long in the low gravity as he headed for the Flag Bridge.

"Captain, please sit down."

Admiral Rory Gildness Reagan looked like an admiral, from his square decisive jaw to the steely gray eyes and the straight and short black hair and bushy eyebrows.

"Commander Hiram—"

"The non-pilot schedules officer?" interrupted McCaine smoothly, as if to clarify a point.

"Why, yes," replied the admiral.

McCaine said nothing and leaned back in the stiff chair, almost tilting the front legs off the deck. Reagan was known for the use of straight-backed chairs to make subordinates uncomfortable, recalled McCaine. But someone forgot to tell him they didn't have as much effect in low-grav.

"Um . . . ah . . . look, Captain. I understand some of your men are not terribly pleased about your scheduling of the new Recovery Vehicle . . ." His voice trailed off.

"You mean, because I scheduled myself for the test hops and because I have the first salvage tour?"

"You must admit it's a bit unusual," noted the Admiral suavely.

"The RV-2's unusual, Admiral, and so are the circumstances of its adoption by the forces." Damned unusual, thought McCaine. No pilot retraining, no full R & D, and only a sketchy addendum to the RV-1 basic flight manual.

The admiral nodded and said nothing. McCaine had him boxed. If Reagan said anything either way, he'd end up in trouble.

After a long silence, the admiral concluded lamely, "So I hope you'll consider all factors in phasing it into a normal operating schedule as soon as possible."

"Yes, sir. I certainly will."

Admiral Reagan nodded a curt dismissal. McCaine bounded down toward the lower levels of the outer station edge where the salvage docks were. He had to detour through the third deck to avoid one section. Suited maintenance workers were sealing off a

bulkhead with instaplast.

"Trouble?" he asked the senior NCO on the team.

"Outer bulkhead blew, Captain. Right through to the shell."

"Casualties?"

"Don't have a handle on the totals, sir. Skitter maintenance crews. Maybe ten bought it right away, ten with pressure injuries."

Just another facet of the problem, thought McCaine. The whole damned station was ceramic and plastic, glorified sand and wood, because His Royal Majesty was saving all the scarce metal possible so he could have massive royal transport for the Court, and, of course, some skitters and warheads to use on the Macedonians. Now ten people were dead, and ten more might be dying, not even on duty in the holy water war.

No one could hit anyone's home planet, not with the laser defense systems powered off the core-taps. But the defense systems used a lot of power, and that reduced the energy for industry. That meant the water from the Belt bergs became more valuable the longer the war went on. Which was why the loyal servants of His Royal Majesty were fighting the loyal servants of the Macedonian Technocracy with plastic outposts and jury-rigged salvage ships. The scarce metal left over from the Court went to the high-powered skitters.

Meanwhile, men and women died at the Trojan Points and elsewhere along the Belt when Plastic shells failed and inadequate salvage ships crashed or when skitter engines failed a million miles from anywhere.

McCaine walked into the ready-room just behind Commander Second Wyemouth.

Wyemouth turned on McCaine.

"Sir, I protest. As senior flight commander, either I or the senior test pilot should take the RV-2."

McCaine saw Wyemouth tightening his jaw.

Hell, the idiot's going to start screeching in front of the whole duty crew.

McCaine took his executive officer firmly by the elbow, using the pressure points, and levered him toward the lock antechamber.

"Mort, I think you're right. We should talk about it."

McCaine half-closed the hatch and let go of Wyemouth's elbow.

"Are you proposing murder or suicide, Mort?"

Wyemouth just stared at him.

"Despite your more recent flight hours, Commander, and those of Lieutenant Commander Heatherton, you are overlooking several points. First, neither of you has flown the RV-2, and in spite of the noises made by Buships, the RV-2 handles a lot differently from the RV-1. Second, I know that. I have flown it. And third, I am the commanding officer, and I have to answer for what happens. Is that clear?"

"Perfectly clear, *sir*," muttered Wyemouth through clenched teeth.

"Mort," said McCaine exasperatedly, "stop making a jackass out of yourself. You don't have a thing to lose. If I'm wrong, I'm the one who gets relieved."

From the glint in Wyemouth's eyes, McCaine could see he was getting through.

"Yes, *sir*," answered the executive officer, more quietly.

McCaine opened the hatch into the ready room and moved up in front of the status board. The skitters had launched at fifteen past. The Macedonians had sent interceptors after the first launch, with a cruiser hanging back. Probably the *Alexander*. Any time there'd be some junk for a pick-up. He gestured to Lyn.

"Let's go."

The two of them walked through the ready room, through the locks, and into the waiting tug. McCaine took his time strapping in before beginning the checklist. Lyn was already going through her list. The tech's position was to the pilot's right and back a half meter, with a narrow aisle between the two seats. The staggered arrangement allowed McCaine an unencumbered sweep through the bubble canopy.

"Primus Operations, this is Angel zero three. Ready for lift," snapped McCaine through his helmet chin mike. His visor was open.

"Angel zero three, you're clear. Caution for traffic off north axis."

McCaine triggered the forward trim jets with a momentary burst and let the outpressure from the dock and the jets throw the RV-2 clear. He could feel the heaviness and the extra power of the modified ship. But no amount of new plastic and remodeling could disguise the smell and sense of the weariness the tug incorporated, thought McCaine.

He checked the main screen for the departing skitters, then flicked the heads-up display tab, which projected the console instruments onto the lower edge of the canopy. That way he could

pilot head-out and still use the full board. Some pilots never got the hang of it.

Personally, he suspected Mort Wyemouth was one of them.

McCaine tuned in the guard monitor, now just static, as well as the skitter attack frequency. He checked both the screen and the actual space off the station's north axis. Both his eyes and the screen showed the last skitters well clear of the station.

As McCaine eased the tug onto a minimum fuel curve toward his recovery station, he thought about Primus...its existence and mission.

Right now the job was to hold the area around the gigantic hunk of ice called Anemone until the Royal Engineers could complete the drive installation on the iceberg. Then an attack team with a cruiser would shepherd Anemone for the first leg of the spiral inward to Darneill. The middle leg of the transit would be without armed escort. The fuel cost would be too high for either Darneill or the Macedonians.

Off Darneill the gross retrorockets would waste more water to brake the iceberg and orbit it. Finally, the Royal Engineers would parcel out the ice for attack fuel processing and for the industrial needs of the dry planet below.

Macedonia didn't need the water. At least, they professed they didn't, but intended to make the getting of it expensive for the Darneillian monarchy.

McCaine broke off his reflections and began to concentrate on the message traffic of the skitter attack channel. While straining to hear the skitter pilots, he took a quick look sideways at Lyn, who was running another test pattern on her console. Even in a shipsuit she was striking.

He turned up the volume on the skitter frequency.

"Pegasus lead, this is Peg two. Aborting. Mace splinter in the tanks."

First casualty of the watch, thought McCaine as he keyed his transmitter.

"Peg two, this is Angel three. Interrogative immediate pick-up."

"Negative. Have slosh for turn and coast."

"Roger, Peg two. We'll be waiting."

McCaine gave the main thrusters a tweak to increase the fractional glide toward the skitter return lane. Peg two's immediate use of his fuel to get into a return glide would save McCaine both work and fuel, meriting His Majesty's gratitude for energy conservation.

McCaine wasn't totally grateful, all things considered, because accomplishing what he had in mind was going to be a bit stickier with a live crew—not that he wished Peg two any more trouble. Coasting back to a plastic station with the hope that a plastic tug could pull you in could hardly be the most comforting thought.

McCaine scanned the long-range screen for the distant blip he knew would be pulling away from the skitter line around Anemone. When it appeared, he locked the tracking computer on it and punched in the request for ETA and PA coordinates.

Better yet. Peg two had overdone it with the thrust and would be coming in high and fast.

The Princeps system was an old one, a strangely bright one located at the fringe of Type II suns where even the space between planets seemed to have a luminosity. Despite the extensive asteroid clumpings of the Belt, the system was low on dust, and the Royal Astronomers could only explain the light level with a speculative and intricate fold-around theory.

McCaine snorted. Trust an academic to come up with an elaborate theory instead of saying he didn't know.

Against the bright background, he still couldn't see the disabled skitter, but the screen showed Pegasus two with a continuing minimal acceleration.

"Peg two, this is Angel three. Interrogative thrust."

"Angel three, Peg two. Slosh still dripping. No fuel control. Jet-tison shears inoperative."

"Roger. Be ready for a bit of a shake-up."

McCaine flicked the thrusters, fingertips tapping the control studs through the skinsuit glove tips, trying to match the course correction readouts on the panel. His outside gauntlets were strapped back flush against his suit forearms, and the helmet face slots were irised open.

Some of the Finance Ministry planners had suggested going to unpressurized deep space RVs, but the king had nixed that. McCaine thought about spending all that time completely suited, not with the light suit he wore, but a full deep-space rig, and shook his head. Besides, a fully equipped unpressurized tug would require more expensive equipment, or at least the manufacture of another set of equipment and instruments, and another type of war manufacture was the last thing the fragile economy of Dar-neill needed now.

On the other hand, he mused, a lot of the plastic shells of the pressurized skitters and RVs were cracking. . . .

McCaine sighted Pegasus two off his nose at ten and a half, right where the tracking screen said it was.

"Seal up Lyn. Here we go. Mag-trac at 75." McCaine closed his helmet and checked the internal pressure. Sealed tight. Theoretically a precaution, but practically speaking, a necessity.

"Roger. Suited tight," responded the tech. "Mag-trac on standby."

McCaine started the recovery, coming in on the mirror course, watching both closure and the heads-up display indicator of the power drain as Lyn brought the mag-trac on line. As the RV-2 passed over the powerless skitter, McCaine eased the nose thrusters up to half, about ten percent more than the RV-1 at max. According to the specs, the mirror course was the most power-effective recovery.

McCaine thought it stunk. Power rations aside, everything could go wrong and probably would, sooner or later. But he was playing it by the book. In any case, Pegasus two was close enough to the station that the back-up tug could take over if Angel zero three decided to split apart.

"Angel three, this is Peg two. Interrogative intentions. We're splintering."

"Are you suited?"

"Suited but junked."

McCaine smiled to himself—grimly. The disabled skitter was nothing but scrap plastic and fatigued metal by now.

"Roger that, Peg two."

McCaine watched the force vectors drop toward zero in the heads-up display and mentally calculated the distance and vector to the station. He keyed his mike.

"Primus operations, this is Angel zero three. Alert Angel zero two for possible launch. Zero three has full load return in progress."

"Angel zero three, Primus. Two is clear to lift. Interrogative assistance."

"That's negative this time."

"Captain," protested Lyn, "I believe we're still in the green."

McCaine translated that formal statement as "what the hell are you up to?"

"So far," he answered, "but you're using three-quarter charge to hold and kill Peg two's outdrift, and I'm still at half plus on the nose thrusters. We're showing some internal pressure loss, and I wouldn't be surprised if something busts loose soon."

McCaine would have been surprised if it didn't. He'd executed the recovery strictly by the book, and the book had been written by Buships. But in practical terms, the book was wrong.

He could already feel the vibrations through the pilot's couch, even fully suited and sealed. The sealed suit blocked most sound and pressure changes, but he felt the tug's internal atmosphere disappear even before the pressure drop fully registered on the console and the warning light flared. The heads-up display on the canopy faded, then vanished.

Guess One verified. Despite all the rhetoric in the manual, Tech Command hadn't beefed up the hull.

"Primus, this is Angel zero three. Internal pressure and higher instruments non-operative. Suggest launch Angel zero two."

"Roger, Angel three. Angel two is clearing. Interrogative assistance."

"Negative this time. Have Prime in visual. Will need dock crew."

"Roger. Dock crew waiting."

McCaine checked the mag-trac. The charge was dropping rapidly with the compensators gone.

"Lyn, do we have a mechanical hold on Peg two?"

"That's affirmative. Clinched up when our shell went. Had to crumple his topside for a grip, though."

"Peg two, this is Angel three. Interrogative crew."

"Angel three. We're shaken, otherwise fine."

McCaine juggled the RV-2 and the towed skitter to a dead halt outside Primus's main salvage port. In a few minutes, both ships were inside.

He unstrapped and flipped the full gauntlets over his control gloves. Knowing Mort Wyemouth was waiting for him in the ready-room, he headed for his own compartment first.

Both Heatherton and Wyemouth met him outside his door.

"Sir," asked Wyemouth carefully, "was there any special reason why you ran a reverse approach?"

"Because it was recommended by the design team as the best one. I also used less than three-quarters max thrust."

Both of them looked at him, afraid to comment, but not willing to let the matter drop.

"Gentlemen, let me ask you one question. If I had used a standard RV-1 approach and I limited the capabilities of the RV-2, how long would it be before I was replaced for failing to use the RV-2 to its fullest?"

Wyemouth started to say something, but stopped. He didn't bother to hide his expression of disgust.

Heatherton scratched his ear, opened his mouth, then shut it suddenly, and nodded. He turned and left McCaine with his executive officer.

McCaine was glad Heatherton was getting the picture. At least one of them understood.

"Sir," inquired Wyemouth, "do you intend to have someone else try out the second RV-2, or are you planning the first operational ride in all four?"

"Since I did not have the chance to test out all capabilities, Mort, I'll be taking out zero eight when she's ready."

"How about the next one?" pressed Wyemouth.

"That depends on the results I get with zero eight." McCaine wasn't going to spell it out for him, not now.

McCaine opened the door, walked into his combination office/stateroom, and closed the door in Wyemouth's face.

Sooner or later, he'd probably pay for it. Wyemouth had his commander's bars because his brother was on the Privy Council, not because of his capabilities as a Space Forces officer.

That was also why Wyemouth was assigned as his executive officer and was ready to report any transgression of His Majesty's Imperial pile of rules and regulations.

McCaine sighed. Here he was, an acting captain, a permanent Commander Second, and filling a Commander First's billet as a salvage squadron C.O., according to his orders, for the purpose of temporarily facilitating the service introduction of the RV-2.

"Sometimes, you wonder," he muttered half-aloud. "Sometimes you really do."

He struggled out of the shipsuit and hung it in the equipment locker, automatically switching the recycler capsules and the oxygen pack.

Leaning against the edge of the desk, he slipped a ration cube into his mouth, hardly noticing as he chewed and swallowed it, and automatically took a swig from the waterbulb in his personal effects locker. Warm, but at this point he didn't mind.

"Should have more to eat," he said to the bulkhead, "but enough is enough."

He sat on the edge of the desk swivel to pull off his inner boots, getting up in turn to peel off his jumpsuit. He hung it on the locker hook, levered down his bunk, collapsed onto it, and was asleep in minutes.



He was awakened by an insistent thumping on his door and realized he'd fallen asleep without even dousing the lights. Terrible waste of power, but it showed how tired he'd been.

"Yes!" he barked, stretching and swinging out of the bunk. He looked at the wind-up chrono on the locker shelf. He'd left his locker open as well, and slept through a full watch. Probably it would be all right. Lyn wasn't supposed to have the second RV-2 ready until later.

"Commander Haskins, sir."

McCaine suddenly felt smelly. All of them smelled. But he pulled on a clean jumpsuit and wadded the dirty one he'd hung up into a mass, stuffing it into the bottom locker cube.

"Just a minute," he called as he flipped the bunk up.

He pulled the depilator from the shelf and ran it over his face quickly, wiped his cheeks and chin with a damp towel, and jammed everything back into the locker and closed it.

"Come on in, Lyn."

She looked down oddly, and he realized he was barefoot. He decided not to explain.

"Ed, I'm short of time." She looked terrible, dark splotches

under her eyes, patches of grime around her neck, and bloodshot eyes. She'd been working while he'd been sleeping.

He gestured to the chair. Lyn ignored the motion and leaned against the bulkhead, which creaked and bent slightly.

"You split virtually every exterior seam on zero three with that recovery. That doesn't include the damage to the frame."

"I thought so."

"Was it necessary? You know it's a better tug. Sure, it's not all that the Tech Command claims, but do you have to prove it out here?"

McCaine shared her feelings about good machinery abused by poor operation, but that was only one side of the question.

"Yes. Because I don't want the RV-2 to kill someone, or a skitter full of someones."

"Still the crusader?"

"No. Just a tired man, trying to do his job before it's taken away." *And you're a tired woman, working twice as hard because of me.*

Without any reaction, she went on. "The second RV-2 will come up watch after next."

"Will you be ready?"

"Yes. Better me than some young tech. Especially with an old lecher like you." She couldn't quite bring off the laugh.

McCaine watched her glide down the curved corridor back toward the tech deck. He didn't go back into his small office/quarters until she disappeared. Belatedly, he remembered he was standing outside his door barefooted.

"Captain, I still don't think this is a wise course. Suppose something happens to you, sir?" protested Mort Wyemouth.

McCaine was checking over his shipsuit for the last time before heading for the dock where Angel zero eight was waiting.

"Commander, you're moderating, I believe."

McCaine knew he was overdoing it by continually baiting Wyemouth, but the big man was a slimy little bastard at heart. Mort Wyemouth hoped McCaine blew himself and zero eight apart. McCaine wasn't going to give him that opportunity—he hoped.

The launch was a false alarm. Not a single Macedonian needleboat approached the Anemone skitter pickets. But McCaine still intended to use the watch.

"Primus operations, this is Angel zero eight. Request clearance

for shakedown re-entry approach."

"Zero eight, cleared after Apollo one docks."

"Roger."

McCaine waited until the tail-end skitter's screen blob merged with the station's image. Then he slipped the test tape into the autoconsole and upped thrust. The tape contained a recommended maneuver for the RV-2... on the high-gee side. McCaine knew the tug wouldn't take the stress loads without something busting loose.

"Seal up, Lyn."

"Roger, Captain."

McCaine watched the instruments for any trace of a wiggle, any sign of motion.

Three-quarters through the recovery brake, the slosh levels of the reserve tank began to drop abnormally, followed by the cabin pressure light. McCaine eased his fingers over the abort stud, but wanted to hold the run to the end. He waited through the final decel as the tug shuddered to a halt. Prime was in visual.

Cabin pressure was below safe minimums and dribbling away. The heads-up display and the more pressure sensitive instruments had quit. He knew the tug frame was overstrained.

"Primus, this is Angel zero eight. Blown a gasket or two. Request tow to maintenance dock."

"Roger, eight."

McCaine expected a hot reception when he left the maintenance wheel and pulled himself hand over hand into the operations half of the station. He was disappointed. The atmosphere in the squadron spaces was distinctly cold.

"Will you be taking zero five out when she's ready?" asked a junior tech from a corner of the cramped ready-room. Someone had put her up to it.

"That's affirmative."

The duty crews were suddenly very busy with their battle dice or their status sheets as the sudden hush evaporated.

The watch for Angel zero five, the third of the four RV-2s, was also without Macedonian contact. Half the time, McCaine thought, the Macers would launch a needleboat just to get the skitters out on line. Then the needleboat would turn tail just before the skitters got in position.

McCaine used the watch as an excuse to bring the tug back under three-quarter thrust. He blew the forward thrusters and the underhull with a half thrust decel maneuver... well within

the design envelope. He left the RV-2 as a pile of junk in the maintenance recovery lock. The once-spacious maintenance area was beginning to look like the junkyard of broken tugs.

McCaine went straight to his stateroom, and to the pile of paperwork that waited. Imperial form this, and Imperial form that, officer evaluation sheets...and who was going to accept his evaluations after this?

And the maintenance records...they showed poorly enough without his destroying three new tugs in a row. Lyn's predecessor as Tech Officer apparently hadn't known a bolt from a screw, nor flexiplast from gasket foam. What made it worse was that not even the common expendables had been reordered in enough quantity. With the time it took the supply types to respond, it would be months before some of it arrived. He wondered why he bothered. He wasn't going to be here months, one way or another. But someone had to.

McCaine shook his head. Given the spotty maintenance before her arrival and the lack of spares, Lyn had done wonders. But even she could only do so much with worn-out plastic and bent metal.

McCaine had only made the situation worse. The combination wasn't helping his popularity on Primus, either in or out of the squadron. Here comes the new salvage C.O., and immediately all the tugs fall apart.

Of the five RV-1s, two were fully operational. One other was go for close-station push and pull work. Two were beyond the capabilities of the station for repair and were scheduled to go back with the next departing convoy.

So...out of nine salvage vehicles, two were operational, one was an untested RV-2, and the other was a cripple. Lovely. Three and a half worked.

Angel zero seven was the last RV-2.

The Captain thumbed the comm unit on his desk.

"Tech, Relyea."

"McCaine. Is zero seven ready to go on stand-by for the next watch?"

"That's affirmative, Captain."

"Thank you."

McCaine thumbed Mort Wyemouth's code.

"Mort, I understand station ops is predicting a full-scale Mace needleboat blast-out on the up watch. Think we ought to have two on stand-by?"

"Wouldn't hurt, Captain. You thinking of taking a stand-by with zero seven?"

"Thought so."

McCaine wondered at the long silence. Mort wasn't known for contemplation.

Finally the response came. "I'll let station ops know they can count on it, unless you'd rather let them know yourself."

"You can handle it, Mort. Thanks."

Even after a few hours' sleep, McCaine was in the ready-room before the watch chimes echoed through the station.

"Peg flight clear. Apollo off the deck . . ." The commands from the stations ops center were muffled, but understandable, reverberating in the small salvage squadron ready-room.

"You set, Lyn?" McCaine asked quietly, walking over to the corner where several tech officers were talking in low voices and throwing battle dice as if it didn't matter.

"Ready as ever, Captain."

McCaine wondered. She'd gotten some sleep, but the darkness under her eyes was still deep. Really quite a person. Again . . . he had to keep himself from reaching out to her. Not here, not now.

He stifled the sigh, then almost laughed at himself. So damn many sighs and groans . . . really taking himself seriously, he was. Still, he'd be glad when it was all over and he could leave the station's plastic hell.

He sat in the middle of the single table, fully ship-suited, half listening to the ops circuit and the conflicting skitter common, as the skitters jockeyed around the Macedonian needleboats.

"Pegasus leader, Peg three. Splinter forest ten and a half high."

"Roger, Peg three. Heavy Mace club in the meadow."

"Apollo three here. We'll take the meadow, and you can have the trees."

"Angel two, clearing for recovery lane." McCaine pictured the old RV-1 moving out from the station.

"Two, you're cleared."

"Roger."

"Apollo leader, this is Apollo two, clubbed and sloshing . . . clearing." The injured skitter's next transmission was to the station.

"Primus, Pol two, half slosh, high on the recovery lane." Apollo two, despite damage, was on the way back.

"Primus, this is Angel two. Outbound for Pol two."

McCaine walked over to the squadron ops desk. Lieutenant

Commander Heatherton was the duty ops officer. McCaine looked over his shoulder and studied the vectors unfolding on the small depth holo. Within a few minutes the situation became clear enough to McCaine.

"Haskins!" he barked and gestured to the far dock.

"Heatherton, run a thrust-kill power check on Pol two. Then tell Station ops why we're launching."

Heatherton looked up in surprise and began to fiddle with the computation controls.

Everyone was tired, too tired.

McCaine had seen enough. A year earlier, even six months ago, Heatherton or the main ops desk would have seen what the power and course requirements meant. Maybe not the station, they never understood the limits of tugs. But McCaine was the only relatively fresh officer left on Primus with any experience, thanks to the punitive orders funneled through the War Ministry by the Finance bureaucrats.

Good thing the Anemone project was nearly complete. But shortly the Royal Engineers would be out demanding protection for another Belt iceberg, citing the need for the all-too-scarce water, and another plastic picket station with skitters and salvagers would go out, supplied for months by convoys while the Engineers set up another orbit fall to Darneill.

McCaine had Angel zero seven clear of the dock before the pieces all had fallen into the clear pattern he'd foreseen.

"Primus, this is the Apollo two. Still splintered and burning. No forethrust. I'll be burned and sloshed out in another couple units."

Lord, thought McCaine. Poor bastard's still getting thrust up the recovery lane with no way to kill it. He doesn't know it, but Angel zero two doesn't have the power to stop him either. And we're still too far out.

"Angel two here. Visual on Pol two. Starting recovery."

"Angel two, this is Angel seven. Pol two is over your power limit. Brake his out-thrust to the max, but do not exceed your limits. Repeat, do not exceed your limits."

There was no response.

Damned hero. And likely to be a dead one shortly.

McCaine keyed the station ops.

"Primus, this is Angel seven. Cleared to cross launch lanes?"

"Seven, you're clear to cross."

McCaine eased the thrusters up to 35 percent, then cut back. Even with the heavier converter, he'd need everything.

The heads-up display, perhaps the last one operational in the squadron, showed the closure. While the screens displayed Angel two's approach and trac, he couldn't see either.

The pinflare of Angel two's thrusters caught his eye. He began counting. "... six, seven, eight," he muttered as the thin flame lengthened and continued. "... fifteen, sixteen, seventeen ... stop it, you idiot ... twenty, twenty-one ..."

The final flare was even brighter.

"Primus, this is Angel two. Lost converter. Lost slosh. Still carrying out-vector. Interrogative ETA Angel seven?"

McCaine checked his instruments. Angel two hadn't lined up his braking thrusts exactly. Probably misaligned instruments, thought McCaine. Flexiplast and rework after rework can only do so much.

Apollo two and Angel two were both drifting up and out-system as they orbited each other.

"Two and two, this is Angel zero seven. Have visual. ETA ten. Strap and suit. I repeat, strap and suit." They probably were, but this one was going to be rough.

"Roger."

"Roger."

McCaine looked over at Lyn.

"Lyn, can we mag-trac Angel two enough to throw him along an intersect to Primus?"

"Let me check."

McCaine waited as the tech's fingers danced over her console.

"Can you spare a thirty-percent slosh loss and a five-unit time-add-on before you tackle the skitter?"

"Thirty-one and four units?" countered McCaine.

"Close, but I think so."

"Let's try it. Seal up before we start."

"Roger."

McCaine used the trim jets to tilt the RV-2 nose high to the skitter and the fallen angel he was approaching.

"Power!" demanded the tech. McCaine twisted up the flow to the converter, watching the fuel level drop and the drain needle peg-out as the mag-trac built up force.

At first, he was conscious only of a faint humming through his boots. Within a unit, the cabin was shaking hard enough to knock the loose stylus from the plot board, and the heads-up display was impossible to see. Abruptly, it vanished.

He watched the ship's internal pressure drop, seeping away as

the bar gauge on the panel dropped toward the red. McCaine didn't realize he was holding his breath until Lyn cut the flow diversion and the drain needle unpegged. He exhaled.

He pulsed the stricken angel to get distance and vector readings. The output from the plotting computer showed a near intersect with Primus station. A bit tight, and Angel zero two would need a close-in tow, but good enough considering the situation.

"Primus, this is Angel zero seven, Angel zero two on a re-entry intersect. Estimate arrival above the recovery lanes in twenty, and he'll need an in-tow. Two's no thrust, no power, low comm."

"Roger, seven. We'll get him."

McCaine shifted his full attention to the skitter, which was drifting further out-system. He pulsed the thrusters to close up. No fancy bookwork here, but a plain and simple overtake and reverse curve.

"Apollo two, this is Angel seven. You strapped?"

"Strapped and ready, seven."

"Lyn, ready for mag-trac and grapple." McCaine knew the tug would lose mag-trac power by the end of the required maneuvers.

"Ready, Captain."

McCaine eased the RV-2 in over the skitter's non-functioning rear thrusters, studying the console's distance monitor as the mag-trac pulled the two together.

"Oh, hell!" He should have noticed sooner, but Apollo two was still leaking. The mist surrounding the damaged skitter should have warned him, but he'd been thinking three steps ahead. Not that he could do much else at this point.

He checked the power flow, slosh reserve, and drift before pulsing the left rear thruster and the side trim jets. He pulsed the left rear thruster again to bring the nose around.

McCaine began bringing up power on the rear thrusters, favoring the left with a higher setting to bring the two ships onto the return course.

A red light flared on the console. Now the tug's internal pressure was well below minimum safety levels. Suited or not, it would be nice to have more than basic instruments, but it wasn't likely.

He sighed as the two noses lined up on the return course to Prime, leaning back in the pilot's seat and checking the relative velocities.

That was when the explosion rocked both the salvage boat and the skitter.

McCaine juggled the power to his rear thrusters and managed to get the noses centered again before the rear thrusters quit.

"Apollo two, this is Angel seven. Interrogative damage."

"Holed, but no more hulk than before."

McCaine ran through the instruments he had left. On course, but fast, a good twenty-percent-plus faster. Twenty-five percent slosh left, but no rear thrusters.

Not much choice. We slow down on forward thrusters, well within the suspect specs, or we don't slow down. Too much mass/velocity for the remaining RV-1 to handle . . . so it's all ours.

"Lyn, this is going to be rough, real rough."

"Ready, Captain."

McCaine watched as the station drew closer.

What am I doing out here in a salvage tug? At forty plus, when all I had to do was say, yes, it's a fine tug?

. . . three, two, one, now!

He slipped in the forethrusters, running them up to half-power, seeing the relative motion slow, sensing the raggedness, feeling himself being pulled gently forward in his seat, wishing he'd had the sophisticated equipment to plot a more gentle decel curve, being shaken as the whole boron-flexiplast hull shuddered, knowing that if there were any cabin pressure left the hull would be screaming in protest. No matter what anyone said, the RV-2 wasn't meant to be stopped nose-first.

Without warning the left front thruster quit.

Almost in reflex McCaine cut the right forethruster and diverted the full gas jet reserves to the right rear trim squirters.

He checked the closure.

He'd stopped the spin/crab, but not all the in-system drift. Without more decel thrust, the combined skitter/tug mass would still be too much for RV-1 to handle.

"Apollo two, interrogative gas for side squirt."

"Almost max." McCaine had hoped for it, knowing the skitter pilots didn't make many trim corrections.

"Roger," he transmitted back. "I intend another decel burst. When I fire, feed full reserves into your right rear trim."

"Wilco."

McCaine jammed the right forethruster to full, held it momentarily, and brought it back to zero. The trim jets of Apollo two corrected their swing, stabilizing them both at an angle to the recovery path.

He checked the relative motion . . . still drifting, but the RV-1

could handle it from here.

The vibration of the deck caught his attention. As he half-turned toward Lyn, he saw the fuel bulkhead bending toward him, pushing the attached equipment over his couch.

As he jabbed the shield pod switch, the darkness came up around him.

"He's coming around. . . ."

McCaine felt like he'd spent an eternity swimming through a gray soup. The overhead had a disconcerting tendency to waver. Overhead?

He realized he was in sickbay.

"Lyn?" he demanded, struggling to lift himself.

"Commander Haskins is fine," a strange voice stated firmly.

He let himself slip back into the gray soup.

McCaine awoke with a start, recalling the collapse of the RV-2 around him, wondering whether he should have tried guesswork decel before he even had the relative motions, how he could have handled it better, and he could, he was somehow sure . . . and the strange voice . . .

The other bed was occupied.

"Well, Ed, it took you long enough."

"Lyn . . . how long? You . . . all right?" His words seemed strangely incoherent.

She smiled. The tiredness was gone from her face.

McCaine forgot the discolored flexiplast walls, the mental fuzziness, the aches across his shoulders and chest, the might-have-beens. He opened his mouth, then shut it, thought about opening it again, and shook his head, all too conscious of the tears welling up in the corners of his eyes.

She was still smiling. He looked away.

"Ed. You won, you know."

"Won?" he asked stupidly.

"Heatherton finished the job, sent the RV-2s back with us."

"With us?" Lord, he felt so out of it.

"We're on the *Avalon* back to Darneill."

Of course, the return convoy. But how long had it been?

McCaine kept trying to put the questions in order in his mind, but couldn't. At last, he turned back to Lyn and shrugged.

She laughed, a short chuckle.

"Both Admiral Reagan and Heatherton agreed that you made an impossible recovery, especially with a defective and untested

tug. They can't remember when someone brought back two crews with a single fuel load. Nothing in zero seven worked by the time we landed up off the recovery lanes—"

"Just stupid, stupid, stupid," muttered McCaine.

"—and if the best pilot available could barely get the RV-2 back in one piece, it wasn't ready for the Forces. That's the official line. Maybe it's because Heatherton leaked the whole story to the flak pool, all about your putting yourself on the line to save your men. It was planetwide before the Finance Ministry and Buships found out.

"Mort Wyemouth had enough sense to jump on the bandwagon. He's really got a slimy sense of politics. He suggested that the concept behind the RV-2 was admirable, but that it needed further development."

McCaine ran his tongue over his lips. God, he'd been lucky. Someone could have been killed, and it might have been him . . . or Lyn.

"What about us?" he asked.

"Heroes are an embarrassment on a working station. Besides, Anemone is about to be touched off. Primus Station is being shifted further Trojan to work another berg."

The painkillers were wearing off. McCaine felt as though he had been through a meatgrinder and been sewed back together with rough plasticable. He looked at the closed door, wincing and unable to suppress the pain reaction, somehow mad at himself for hurting.

"Ed." It was said gently.

"I know. I know," he said quietly.

And he did. Medical retirement at the permanent rank of Commander Second, quiet days, gardening, writing, whatever, being remembered, if at all, as the only pilot to destroy four tugs in a row.

The messages his body was sending were clear. His piloting days were over. In some ways it was too bad he'd devoted all his time to the Forces. No family, and friends expended like melted plastic in the senseless fights between Macedonia and Darneill.

"You don't know!"

He looked at her in confusion.

"Edward Alton McCaine, you're thinking about a forced retirement, a bit of disgrace, an abrupt transition to solitude. And you're feeling sorry for yourself. The great Edward McCaine humbled and reduced to private citizen . . . so wrapped up in his

fears he isn't even listening . . ." Her voice dropped. "I'm sorry, Ed. But listen. I said you won, and you did.

"The king made you a permanent Captain and put you in charge of the Buships RV-2 program. It's only a year's appointment as an acting Admiral, but he *had* to. Oh, and Admiral Reagan put you in for a D.S.P."

McCaine brushed the honor away with a weak gesture. "What about you?"

"I'm putting in my papers."

Maybe he should have expected it, but things weren't going the ways he'd anticipated. He was staying with the Space Forces, and Lyn was going. Lyn retiring? Just like that? Who would he talk to? Why was he so upset by it?

"Why?" he blurted.

"Because, Edward McCaine, because. If I stay in, they'll ship me back into orbit while you're in Tammerlane getting into trouble again with the Finance Ministry. Besides, someone is going to have to take care of you or you'll go off making a hero out of yourself again. And you're too stubborn to admit you need a good tech officer, retired or not, behind you."

Lyn wanted to stay with him. With him. No more separating, no more tours alone, wondering why.

"Maybe I should too," he answered.

"And waste my noble gesture? Not a chance."

"You think you know me pretty well," McCaine said with a rueful twist to his swollen lips.

Lyn looked back at him, her face free of tension and with a full smile bordering on a grin.

"You do," he finished, "you do." And we have a job in Tammerlane . . . together.

REBUTTAL³ TO \$TAR WAR\$

Some think Leia's finesse is on cue;
They're mistaken, it's sad but it's true—

It's not courage or style
(Leia quite lacks the guile)—
She triumphs by being a shrew.

—Stephanie K. Lang

DEGRADED!

by Jean S. Moore

art: Janet Aulisio



Professor Moore was born in London, England, and describes herself as having been in the prime of life for some time. She teaches at Belmont Abbey College, in Belmont NC; her favorite course, of course, is James Joyce. Professor Moore has two daughters and a son, all grown; "Degraded!" is her first sale.

If ever any so-called human deserved to be devoured, it was Larkspur. If ever creatures of literature were justified in attacking their reader, James Joyce's cannibalistic Lestrygonians were. Larkspur, a literalist to the bone, defended his every maddening question in my *Ulysses* seminar by pointing to those safe little black letters on white paper. They meant what they said, no more, no less, he claimed. At the time, I could not have imagined how much trouble one student was capable of causing.

Larkspur sat in the back row, his wide-framed glasses beaming at me like binoculars over the heads of his shorter classmates, his arm semaphoring distress every time we came to any imagery, which was at almost every word, of course, with James Joyce's works.

"Why do we have to study this ancient twentieth-century stuff?" he grumbled. "Even the way it starts off is weak." He ignored my glare. "What *clue* is there, Ms. Barnacle, that this 'stately, plump' guy, Buck Mulligan, isn't supposed to be just *shaving* at the beginning of the book? They did back then, you know, in Ireland. How can you say he represents a priest just because his shaving stuff is crossed on a bowl of lather?" (Larkspur is sentenced to instant execution!) That's how I remained outwardly serene each time he looked at mere words and refused to see more.

"Exactly what is a 'one-handed adulterer,' Ms. Barnacle?" or "How come the main character's father couldn't read frontways?" he persisted, flipping through the pages of *Ulysses* and quoting excerpts at random.

I tried to answer with some semblance of patience, but oh! the longing to quarter him, gnaw on his bones, remove him from the face of my classroom each time he detonated my denotations—that's not Joyce, but it should've been. In short, wide-eyed Larkspur had transformed his harmless professor into a mental cannibal long before our dogged odyssey through Joyce's masterpiece brought us to the episode of the giant man-eating Lestrygonians.

In the meantime, many others in the class were enjoying the novel. Not that it didn't carry its risks—students frequently claimed that Joyce's work gave them nightmares. In a way, it was a predictable stage they went through in the process of tuning in to *Ulysses*, and the seminar members liked to exchange accounts of dreams before class started.

"Last night I dreamt I was waylaid in the Dublin cemetery by a raincoat with nobody in it," reported one girl, giggling. This indicated to me that she had probably turned on to Joyce in the funeral episode.

"That's nothing," said Larkspur, turning at his desk to face her. "I had a dream about a bunch of gigantic Lustygonians. They surrounded me in this jungle and chanted, 'He proves by algebra that Shakespeare was an Irishman. Eat him.' Was I glad to wake up! I don't know which scared me more—being eaten or having to do all that algebra." To Larkspur, this nightmare-stage proved that Joyce's work was flawed, and he eyed me triumphantly. Surely he should pass the course, his look signalled. After undergoing nightmares, it was only fair.

The girls' dreams generally tended towards the exotic—at least one co-ed per seminar was likely to identify with Joyce's "fleshpots of Egypt"—but the male students sometimes went in for violence, usually of a strange nature.

"I dreamt I was the main character in *Ulysses*," said one of my older students, a senior citizen, "only I was me, myself, not Leopold Bloom. And I went into the Dublin bath-house, just like Bloom did, to get a bath. I met these really far-out Lotus Eaters in there—have you noticed how everyone's eating all through this book?"

"What happened?" asked Larkspur. "Did they eat you?"

"No. They eat lotus flowers," the man said patiently. "I climbed into the tub, and somehow I shrank. I was swimming around in this huge bath and my head was sort of circling on the surface, like a water-lily," said the senior citizen, who fancied himself as a poet, "and then one of the Lotus Eaters pulled out the plug and I went down the drain and into the river Liffey. . . ."

"You're getting on well," I said. "This is how I gauge your progress. The dreams will stop soon." I had no inkling at the time that they would unwittingly put me through a real nightmare, and it would be Larkspur's doing.

Joyce moves in labyrinthine ways (both literally and otherwise) and sees to it that eventually the Larkspurs of this globe will flunk out. "You gave me a D," he challenged after class around mid-semester, flashing his grade-card at me like a police badge on the off-chance that I couldn't focus. He always treated me as if I dated back to the twentieth-century along with *Ulysses*, although I was barely old enough to be his mother. I sometimes wondered, when Larkspur was around, how it would feel to look at a grown offspring and realize you'd given birth to a stuffed shirt. "What's a D mean?" he cried.

"If Joyce had written the D, we could spend hours discussing your question," was my trump, but irony was a waste of time with Larkspur. He moved closer to my desk.

"I don't think they knew how to write properly back in those days," he grumbled. "Is that how they talked in Dublin? Look at the last few pages—no punctuation! Look at the ending of the novel—'Yes I said yes I will Yes.' Yes what? It doesn't say. Where are the commas? Why keep repeating the same old thing over and over?" I had the uncanny feeling that a storm was approaching.

"It will all be clear when we get to the end," I promised. I didn't promise that it would be clear to *him*.

"What a waste of money," he countered, beaming his binocular-glasses at the book in his hand. "Over 780 pages of gibberish. Why read it in the twenty-second century—it's out of date." Then he did it. "Why don't they illustrate it instead? Tell it in pictures and get rid of the words."

"What?" (Send for some rope.)

"Pictures. Make something like a *Classics Comic Digest* book of it. People could understand it then. . . ." He trailed off as his binoculars made eye-contact with my expression.

"Larkspur, I will have to kill you. I see that now," I said, to close the conversation.

"Some classic," was his parting barb, calculated to open my eyes to the truth, which it did, of course, in another sense.

I almost hate to go on. That was the last we saw of Larkspur before he was gobbled up, so to speak, by the lusty Lestrygonians of chapter 8. At least, he did vanish from the seminar, but not before he had infected a few of the others, like the malignant microbes that books tell us caused so much trouble in past centuries.

"Why don't they write a simplified version of *Ulysses*?" argued the infected ones with brisk practicality. "Why don't we get the Citmob onto it? They can organize a world-wide collaboration. The Citmob can use all kinds of talent."

"But why should they?" I wanted to know, avoiding the issue that it would ruin a great piece of art. "They only work for top priority tasks. Just why do you think the entire world citizenry would mobilize for this?" They were ready for me.

"Because people have been trying to read Joyce for well over 250 years now, Ms. Barnacle. And what progress have they made?"

On that point I had to agree. My students clutched microfilmed *Ulysses*-capsules in their pockets, and direct-interior-monologues were relayed into their skulls through invisible ear-plugs by a kind of ineluctable osmosis, but they were all as lost as if it were still 'way back in the twentieth century when the work first saw day.

Since I was outnumbered, the class prevailed over my protesta-

tions. They plugged into the Main Professor, a round grill on one side of our black verbal-wall, and voiced their request. Soothingly-modulated non-sex syllables echoed in the grill, "I understand. It shall be looked into."

Main Professor evidently contacted the Head without delay, because we were informed within the hour that the project had been received favorably. Perhaps the Head himself had tried to read *Ulysses* at one time, with no more luck than Larkspur, and human motives survive still. We were told that the Citmob operation would begin immediately, utilizing the entire world population if necessary. "We will commence," crackled Main Professor's grilled voice, "at noon precisely."

"How will the job be organized?" I asked in dismay.

"Quite simple," the grill breathed. "Selected literate humans from the entire race will take one word each that will be assigned to him/her out of *Ulysses*, and engage in extensive study and research. Each will concentrate on the denotation, connotation, association, juxtaposition, and relevance of his one word to [a long rattling breath] Joyce's education, Jesuit up-bringing, religious beliefs, numerology, Irish background [dear dirty Dublin] history, mythology, musicology, liturgy, digestive system, ironic overtones, and knowledge of foreign languages. . . ." There was more.

The seminar members turned accusing stares at me. So far, I hadn't troubled their minds with most of these aspects of the novel. "Then," continued the voice beside the verbal wall, "each person will relate this information to the major and minor themes, motifs, styles, symbols, and metaphors employed by Joyce [breath] *not* forgetting his indebtedness to Aristotle, Aquinas, Vico, Blake, Jung, Dante, Macintosh, and the river Liffey."

The class gaped some more, probably wondering what monster they had set in motion. "Will it take long?" quavered one Larkspurite.

"Yes," intoned Main Professor, and signed out like a silent thought-wave.

None of us could have expected what did happen: Ten years passed before the immediate job was completed; and I would have been happy if it had never been finished, because I anticipated the worst from any simplified version of a great masterpiece. I felt it would surely resemble something Joyce's Lestrygonian-Dubliners left on the side of their plates in disgust.

These years weren't frittered away; they were spent in diligent

research by each world-citizen on his assigned word. In spite of the hard work involved, most of them seemed to be having a lot of fun with their discoveries. Each wrote a lengthy study, while millions of pages of research streamed into the Head Office for micro-filming.

At the end of ten years, on the Twenty-Second Century News program, the Head announced, "The world's work is completed! It will now be possible to synthesize the basic meaning of the novel *Ulysses* and compress this meaning into a *Classics Comic Digest* book." As an afterthought, perhaps because it was an election year, he added tactfully that the world would be greatly indebted to the world for this enormous community effort.

Phase II, the final step, was to feed the millions of studies on *Ulysses*, like sacrificial virgins, into the Centerbrain which was housed in a revolving tower atop the tallest building in the capital city; and its progress on the synthesis was expected to be televised periodically like news flashes from the stock exchange. The machine was team-programmed meticulously, instructed to digest the material and produce a unified, formally structured, meaningful composite of the vast quantity of information.

The instructions were checked and double-checked, the button was set to the ready, and then the signal was given for the ancient ritual: A symbolic citizen lit a torch in the city square and, after running the half-mile to the Centerbrain building, he ceremoniously rode the elevator up to the revolving tower. With torch aloft, he stood behind the Head who then fired a beam at the button, the Brain ground smoothly into activity, and the gigantic task had begun. This whole phase of the Citmob operation was televised in a special three-day Joyce-athon, to keep the world population informed about the fate of each citizen's word; but as for me, I didn't even watch.

Years went by uneventfully. The chief programmer was seen on television to signal the Brain periodically, asking if the end was in sight, something like Pope Julius calling up to Michelangelo busy at his ceiling. Each time, the giant placidly ignored him—it was enjoying itself, masticating each morsel of *Ulysses* with gourmet relish.

Unfortunately, life doesn't run as smoothly as the Centerbrain, and eventually the inevitable happened—Larkspur Junior arrived in my Joyce class. His reflexes were so much like his father's, as I remembered him before the turn of the century, that I found myself wondering if my former student had solved the problems of human cloning, not yet officially perfected.

What had happened with the Citmob endeavor was, by this time, repeated with Phase II—ten more long years passed. The chief programmer had retired unfulfilled; and a young woman replaced him beside the Brain, to await the miraculous birth, while a weary world watched.

A certain amount of interest was generated at this time by sooth-sayers, a bunch of weirdos like throw-backs to the Hari-Krishnas, who surfaced and were going around predicting an End of the Task by the eleventh year, the number used by Joyce to signify renewal.

Now the eleventh year arrived, *Classics Comic Digest* publishers poised beside their printing presses—young people convinced that every minute counted—and their artists stood by with cartoons they had sketched of scenes from Bloom's day in Dublin. The Centerbrain finally uttered one word:

"Finis!"

It was so unexpected that the great moment wasn't even televised, and news had to spread by word of mouth. The world was in a turmoil, and all work stopped while the citizenry awaited an official newscast.

The Head was sent for immediately, and television cameras focussed on the machine's ejector. You could hear an uncanny hush in the Centerbrain's tower, and then a muted clapping from those present as the first pages quietly appeared. It was like the reverent hush, finally broken by cheering, back when the first photographs taken on Mars were televised.

"Come and watch this, Ms. Barnacle," said Larkspur Junior, semaphoring from the group of students beside our wall screen. He probably put my lack of interest down to senility—students will persist in believing in it.

What we saw was the Head collecting up the final manuscript pages one by one and scanning them with a gurgle of disbelief. He looked up and gazed through the television cameras as if at us, the viewers beyond. He must have been remembering the ten long years of human effort and the eleven of machine coordination, and I could have sworn that he looked directly at me through the lens.

Then he shuffled through the 783 pages of print that had been ejected by the Centerbrain, and on page one he read out loud: "Stately, plump Buck Mulligan came from the stairhead, bearing a bowl of lather on which a mirror and a razor lay crossed . . ." From here the Head flipped to page 783, staring, still unbelieving, at the

words which he could barely speak: "... yes and his heart was going like mad and yes I said yes I will Yes."

The screen went blank, and my students turned to me in bewilderment. "What happened?" they asked.

"It worked," I said in relief. "The classic, comic *Ulysses* has been written. And now, let's get on with our book."



BLASTERFIGHT AT THE P.U. CORRAL

The Cylon delivered the threat,
And Starbuck was starting to sweat;

The rest, I'll pretend,
'Cause I don't know the end:
I busted the knob off my set.

—Barry B. Longyear

WHERE
A STAR IS A SHIP

or

WHEN IS A MICRON A PARSEC?

or

WHEN IS TV GOING TO START HIRING SCIENCE
FICTION WRITERS?

Though purists, perhaps, tend to sneer,
Adama's staunch fans have no fear;

The *Galactica's* flights
Are, on those Sunday nights,
The comedy hit of the year.

—Tol E. Rant

THE SF CONVENTIONAL CALENDAR

by Erwin S. Strauss

Everybody should be rested up from the continental and world SF con(vention)s; and there are a bumper crop of chances to get out for a social weekend with your favorite authors, editors, artists—and fellow fans. For a longer, later list and a sample of SF folksongs, send me an addressed, stamped envelope (SASE) at 10015 Greenbelt Rd. #101, Seabrook MD 20801. For the latest, call me at (301) 794-7718. If you get my machine, I'll call you back. When writing cons, enclose an SASE. Look for me at cons as "Filthy Pierre," blowing into a black hose hooked to an accordion keyboard.

MosCon. For info, Write: Box 9141, Moscow ID 83843. Or phone: (208) 882-8781 (10 A.M. to 10 P.M. only, not collect). Con will be held in: Moscow ID (if location omitted, same as in address) on: 28-30 Sept., 1979. Guests will include: V. S. Trestrail, Alex Schomburg, and Robert A. Heinlein (health permitting).

PghLANGE, (412) 561-3037. Pittsburgh PA, 28-30 Sept. Gene Wolfe. A very relaxed affair.

OtherCon, (713) 846-9782. College Station TX, 28-30 Sept. George R. R. Martin.

RoVaCon, (703) 389-9400. Roanoke VA, 28-30 Sept. David (Trouble with Tribbles) Gerrold, Karl Edward Wagner, and Elizabeth Taylor Warner (yes, THAT Elizabeth Taylor).

NonCon, (403) 986-3870. Edmonton, Alta., Canada, 5-7 Oct. Gordon R. Dickson and Eli Cohen. Second con in as many weekends in the Empty Quarter of the continent—what's up, up there?

WindyCon, Box 2572, Chicago IL 60690. 3-5 Oct. That's all I know about this one right now.

World Fantasy Con, (401) 722-4738. Providence RI, 12-14 Oct. Stephen King, Frank Belknap Long, Michael Whelan, C. L. Grant. The fantasy fan's WorldCon, a 5-year-old tradition.

MileHiCon, Box 11545, Denver CO 80211. (303) 433-9774. 26-28 Oct. Jack Williamson, Curt Stubbs, and Ed Bryant. This is the senior of the Denver area's two annual SF conventions.

AcadianaCon, 815 E. Railroad, Broussard LA 70518. (318) 837-1769. Lafayette LA, 26-28 Oct. David Gerrold. The emphasis will be on Cajun food, music and culture. Sounds intriguing.

Roc*Kon, Box 9911, Little Rock AR 72219. (501) 568-0938. 26-28 Oct. Gordon R. Dickson.

MapleCon, Box 2912 Station D, Ottawa, Ont., Canada K1P 5W9. (613) 236-5658. 26-28 Oct. Harry (The Stainless Steel Rat) Harrison. Note the corrected dates for this convention.

NovaCon, Box 428, Latham NY 12110. (517) 783-7673. Albany NY, 2-4 Nov. Wilson Arthur (Bhob) Tucker & Bob Shaw. "The first British con in the US." Free to holders of UK/Eire passports.

ConClave, c/o EMU SFS, 117 Goodison, Ypsilanti MI 48197. Detroit MI, 2-4 Nov. A. E. (Null-A) Van Vogt. Another intimate Michigan con. What's a "Drunken Spacewoman" party?

OryCon, Box 985, Beaverton OR 97005. (503) 231-9677. Portland OR, 9-11 Nov. John Varley, Richard E. Geis, Ursula K. LeGuin, Jesse Peel, Mildred Downey (Bubbles) Broxon.

PhilCon, c/o Millstein, 10104 Clark, Philadelphia PA 19116. 9-11 Nov. Joan Vinge and Karl Kofoed. The oldest SF convention going, dating back 3 years before the first WorldCon.

Icon, c/o Hinchcliffe, Rt. 3, Farm 696, Cedar Rapids IA 52401. Iowa City IA, 9-11 Nov.

LosCon, c/o Pelz, 15931 Kalisher, Granada Hills CA 91344. Los Angeles CA, 9-11 Nov., 1979.

NorEasCon II, Box 46, MIT PO, Boston MA 02139. 29 Aug.-1 Sept., 1980. Damon Knight, Kate Wilhelm and Bruce Pelz. The World SF Convention for 1980, back in Boston after nine years.



HOMECOMING

by Barry B. Longyear
art: George Barr



Mr. Longyear describes himself as a part-time professional do-gooder, mostly as a result of being elected director of the local animal shelter and finance chairman for the animal shelter building fund drive (have you, he asks, ever tried to squeeze \$50,000 from a community that never recovered from the Crash of '29?).

Lothas draped his heavy green tail between the seat cushion and backrest. Extending a claw on a scaled, five-fingered hand, he inserted it in a slotswitch and pulled down. The armored shield on the forward view bubble slowly lifted as the control center went to redlight. Lothas felt the strange pain grow in his chest as he looked through the filter at the target star, now no longer a point of light but a tiny, brilliant disc. He leaned against the backrest, his large dark eyes glittering as they drank in the sight of the star. *It has been so long. Even though I have been out of suspension for only a total of six star cycles, yet I still know it has been . . . seventy million star cycles. A third of a galactic cycle.*

Lothas noticed his own reflection in the filter, turned his long neck left, then right, and marveled at the absence of change. The large eyes, occupying a fifth of the image, were clear and glinted with points of red, blue, and yellow light reflected from service and indicator lights. The skin, grey-green and smooth, pressed against and outlined the large veins leading from his eyes down the elongated muzzle, with its rows of thick, white, needle-sharp teeth. His focus returned to the star as he reached and pressed a panel with one of the five clawed fingers of his right hand.

"This is Lothas Dim Ir, on regular watch." He paused and examined the navigation readout, then switched to a display of the rest of the cluster formation of ships. "The formation is normal; no course corrections necessary; the homestar Amasaat now at . . ." he examined an instrument, ". . . four degrees of arc."

He pressed another panel, signaling to all the watches on the rest of the ships. The display showed all but three of the two hundred ships answering. Lothas studied the display, slightly confused that he felt nothing about the missing ships. Automatic recording systems had shown the three ships wrecked by the same meteor. *But that was . . . millions of cycles ago. Difficult to feel*

pain for deaths that old.

He pressed another panel, and the display began filling with life unit survival-percentage figures transmitted by the watches on the other ships. Automatically an average was made and a total rate of survival and unit count was made. 77.031%; 308,124 life units surviving. Lothas nodded. There had been no change in the figure for...over thirty million star cycles. The three wrecked ships, and the others who could not survive the suspension process. *But, the rest of us shall see Nitola.*

Lothas looked around at the empty control center. Moments after he gave the initiate-desuspension command, the center would be a hive of activity. . . . *A hive of activity; I wonder if the little stinging sweetsects have survived?* He looked at the banks of receiving equipment, sensor and analysis piles, and the rest of the tools that the knowing ones would use to see how Nitola had changed. *But, this moment there is still quiet—this wondrous, jeweled loneliness of space. I ache for my home planet, but this, too, has become my home.*

He reached out a claw and closed the shield, cutting off his view of the homestar. As the center returned to yellow light, Lothas pressed the initiate-desuspension command. As the ships answered, he listened to the sounds of life stirring in his own vessel—motors whined, draining the clear suspension fluid from countless lengths of veins and replacing it with warm blood. Lothas looked at the drain set into the skin of his own arm. He pulled it free and watched as the blood pooled slightly, then began clotting. He tossed the drain into a recycler. *We will need them no longer. We are almost home.*

Carl Baxter, garbed in regulation briefs and tee shirt, looked up from under the bed. "Where are my socks?"

The lump on the bed, sheets pulled over her head, mumbled. "I don't wear 'em."

"It's my last pair of clean socks. Now, where are they?"

The lump pulled the sheets down, exposing a sleep-mussed tangle of black curls framing a pretty, if angry, face. "You'd have clean socks if you'd do the laundry more often. We both work. There's no reason why I have to be the—"

"Yeah, yeah, yeah." Baxter pulled out the dresser and looked behind it.

"Yeah, yeah, is it?"

"Yeah." He pushed the dresser back against the wall. "Look, it's

not like we had the same kind of job, Deb. I have to be at the base at oh six-thirty six days a week, and sometimes seven. I'm lucky if I can drag it home in time for Johnny Carson. And you want me to pitch in with the laundry, grocery shopping, housecleaning—"

"Look, supersoldier!" Deb pushed the hair from her eyes. "You think keeping the agency going by myself is easy? Just last week that idiot layout man you hired before you were called up totally feebed the Boxman Spring campaign. I've been putting in sixteen hour days to try and have it ready in time! You want laundry on top of that?"

Baxter concluded his third survey of the dresser drawers by slamming the upper right. "Why don't you hire some help? We can afford it."

Deb's eyes widened. "Yawl means dat Massa Baxter gonna let dis nappy ol' head actually hire someone? Me, a *woman*!"

"Oh, knock it off!" Baxter frowned and sat on the bed. He put a hand on Deb's shoulder. "Look. I'm sorry, Deb. I know I said no hiring until I got back, and I know it's been tough on you. Go ahead and hire whatever you need in the way of help. I'll give Boxman a call and try and straighten things out."

Deb put her hand on Baxter's and looked up into his eyes. "Carl, when is the Air Force going to be finished with you? This whole thing is so silly. One day we are running a successful advertising agency and living in a nice condo, and the next we're stuck here in the middle of nowhere in a shack that hasn't been repaired since Billy Mitchell was a P.F.C. Tell me there's a light at the end of the tunnel."

Baxter shrugged. "I don't know." He raised his head and looked at her. "That trip to Santa Barbara every day is getting you down, isn't it? Maybe you'd be happier if you stayed at home?"

"Look, Baxter, I'll stick it out as long as you do, and how much longer can that be? Your six months is almost up, isn't it?"

Baxter stood up and resumed his search for the missing pair of socks. "You think I might have left them in the living room?"

Deb's face developed an instant frown. "Isn't it?"

"Isn't what?"

She shook her head and pounded on the mattress with her fists. "Oh, no! You didn't! Tell me you didn't get extended, Baxter! Tell me you didn't, or I'll brain you with the alarm clock!"

He sighed, shrugged, scratched his head, then held out his hands. "I didn't have any choice, Deb—"

"Ooooooooooooo! You . . . you . . . monster!" She threw off the covers, swung her legs to the floor, then stormed off into the bathroom. The door slammed, then clicked.

"Deb?" Baxter walked to the door. "Deb, honey? Don't lock yourself in, honey, I still have to shave."

"Go away."

"Deb, I'm all they have in public relations right now to promote the Air Force's argument for the combined shuttle, not to mention the new bomber, and the—"

The door opened, a pair of socks flew out, and the door slammed shut.

Wearing one regulation blue and one not-so-regulation yellow and red Argyle sock in addition to his uniform, Captain Carl F. Baxter pulled away in the blue staff car assigned to him. He came to the cross-street stop sign, screeched to a halt, and rummaged through the glove compartment for his electric shaver. A honk came from behind, and Baxter looked over the top of the headrest to check the honker's rank. Seeing only single golden bars, he returned to his search. *Damned thing has got to be in here.* His hand closed on the ancient Remington, a gift from his mother-in-law, and he sat up and removed the cap. The driver behind honked again, and Baxter extended a finger in the Hawaiian good luck tradition, then returned to the shaver. With an angry squeal of tires, the lieutenant pulled around Baxter's car, ignored the stop sign, and pulled out onto the base's main drag. With his shaver humming, Baxter pulled out and turned right.

Baxter caught a flash of a sign, "ODQ-D7," recalling Deb's comment when she first saw it. "This is our new home? Oh, I like the name; it's so much nicer than Hollywood Hills or Sutton Place." He snorted and leaned on the accelerator as he came abreast of the parking ramp for the experimental aircraft. Deb was ready with a comment for that, too. "Oh, what a nice view—Baxter, I want a divorce!" She didn't really, but she was not happy, and neither was Baxter. An experienced test pilot, he had left the Air Force during the testing cutbacks of the late sixties to begin his own advertising agency. As a reserve officer, he had assumed that, if he ever was called up, it would be as a pilot. But the Air Force had found his advertising skills much more desirable, and dropped him in public relations. Baxter glanced out of the side window at the black, needle-pointed craft on the ramp being readied for a test. *Dammit, it is a beautiful view!*

He turned back to his driving and concentrated on missing the larger pieces of traffic. The congressional delegation would show up in two days, and the presentation on the combined shuttle was still in search of a theme—or at least a theme less obvious than "Gimmie bucks!" Then, there was still the planning board in town to deal with. The proposed recruiting facility violated the town's zoning ordinances, and it was feather-smoothing time. Even though federal departments aren't obligated to be governed by local zoning regulations, bad press is still bad press. The theme: cram the new facility down their throats, but in a manner that makes it look like the Air Force is doing the town a big favor. The Concerned Women from town still had to have a number done on them. In the office, the group was known as the Anti-Slop Chute and Whorehouse League. The dear ladies objected to men from the base supplying a market in town for the growing number of bars and ladies of negotiable virtue. Theme? *Perhaps we could have all the men castrated, ladies. How would that be?* Baxter chuckled, then resumed his sober expression as he remembered the school board *had* to be dealt with. The screams over supporting the educations of the base's dependent children were getting loud, and the charge that a group of Air Force brats had introduced pot to their playmates was no help. . . "Ah, nuts!"

Baxter drove it all from his mind as he pulled up to the guard shack at the security gate. An AP, three times larger than life, with a jaw the size, shape, and color of a cinder block, saluted and bent down to the car's window. "Captain Baxter?"

Baxter nodded. "Yes, I'm Baxter."

"Carl F.?"

"That's right."

The AP opened the door and motioned with his hand. "Please slide over, sir."

"What?"

"I'm supposed to drive you to a security area, Captain. Please, slide over."

Baxter reached for the door and tried to pull it shut. The AP's grip on the door might as well have been a ton of reenforced concrete. Baxter looked into the guard shack and saw Wilson, one of the regular AP's on the gate. "Wilson, will you call off this trained gorilla? I have a lot of work to do today, and no time to fool around."

Wilson stood in the shack's doorway and shrugged. "I'm sorry, Captain, but Inovsky has his orders."

Baxter looked at the gorilla. "Inovsky, huh?"

"Yes sir."

"You sure you got the right Air Force, Inovsky?"

The AP unsnapped the cover on his holster. "Please, Captain Baxter. Slide over."

Baxter shrugged and put the car in park. "Sure. Why not?" He slid over and watched as the huge AP slid in, slammed the door, then squealed off, heading the car in the direction of the experimental parking ramp. "What's this all about?"

The AP shook his head. "I don't know, Captain. I was detailed to get you to the experimental section." The man cracked his first smile. "But with all the brass that's been landed out on the field during the past hour, it looks like you're going to see some important people."

"How important?"

"The secretary of defense, the base commander, and just about everything in between, from what I hear."

Baxter looked out of the window on his side, and tried to inch his right trouser leg down over his Argyle sock.

"A question rests without answer in my mind, Lothas."

Lothas turned away from the side port where he had been drinking in sights of the blue-white planet Nitola—now called Earth. Medp stood next to him. "Medp, have the knowing ones among you time now for idle thoughts?" Both of them looked at Nitola. "What is the question, Medp?"

Medp nodded in the direction of the planet. "How does a race such as that select a representative to treat with us?"

"The hue-muns?" Lothas paused, wondering how his own race would have reacted at the news of seventy-million-cycle-old visitors from the past. "I can not even speculate, Medp." Lothas held out a clawed hand. "All those separate tribes, such confusion—I know not." He turned toward Medp. "How are the surveys progressing?"

Medp looked at a readout strapped to his wrist. "We have over twenty distinct languages, with as yet uncounted dialects, entered in the lingpile, and this from only their radio and television. Many more languages are yet to be entered. However, the tribe who is sending the representative speaks the English, and that we have entered in quantity."

Lothas turned back to the view port. "And the other surveys?"

"Everything is much as predicted. Residual radiation is negligi-

ble, vegetable and animal life is reestablished, although the forms are highly mutated. As I said, it is all much as predicted."

Lothas nodded toward Nitola. "All except this hue-muns creature. That we did not predict." He reached up and touched a panel that dropped armor over the view port, then turned to Medp. "I have a question of my own, knowing one."

"Speak."

Lothas lowered himself into a couch and closed his eyes. "How would we choose a representative, Medp, if the positions were reversed?"

"That is easily answered; we would send the wisest of our race. Nothing less could serve such a moment."

Lothas nodded. "Perhaps the hue-muns will do the same."

Baxter looked around the room at the circle of seated high-ranking officers and officials. "What in the ever-loving, four-color-processed Hell are you people *talking* about?"

The secretary of defense looked at the chairman of the joint chiefs of staff, and the chairman and the secretary of the air force both looked at Baxter's base commander, General Stayer. Stayer's glance seemed to lower the room's temperature by twenty degrees. "You don't understand, Captain. You aren't being asked; you're being ordered. You're it."

Baxter found a chair and lowered himself into it. He realized that he was coming across as being a little wild-eyed, and he took several deep breaths before he continued. "Gentlemen, what I do not understand is how I drew the black marble on this one. It's been seven, no, eight years since I flew anything even resembling the Python."

An unnamed colonel seated next to the secretary of the Air Force leaned forward. "Captain, you are familiar with the XK-17 Python, are you not?"

Baxter shrugged and shook his head. "Only for publicity purposes. I never flew it, or even checked out in it. The things I know are things people want to know, like cost figures, performance—"

"And all your tickets are up to date?"

Baxter held out his hands, then dropped them. "Yes."

"And you are in top physical shape?"

Baxter nodded again. "But, Colonel—"

The Colonel held up a hand. "Captain, you will be surprised how fast we can check you out in the XK-17—"

"Colonel!" Baxter was startled by the loudness of his own voice.

"Colonel, there must be at least five pilots I can name who are checked out on the Python, and who are on the base right now."

General Stayer gave a curt wave of his hand at the Colonel. "Let's cut through the crap. Baxter, you're it. None of those pilots is trained in public relations. You are."

"What about whatsisface? The astronaut in the senate?"

Stayer shook his head. "Too old, his tickets aren't up to date, and we can't locate him. He's somewhere in Canada right now, fishing." The General leaned forward and pointed a finger at Baxter's throat. "You are the closest thing to a flying diplomat that we can get off the ground within the next twenty-four hours, because the Python is the only vehicle that is ready to go right now."

The secretary of defense moved his head a fraction of an inch, signaling his desire to speak. "If I may, General?"

"Of course, Mr. Secretary."

The secretary, a blown-dry glory in four-hundred-dollar pin stripes, let his gaze wander around the room as he talked. "Captain Baxter, I realize you are being asked to perform a difficult task, but we have little choice. The . . ." he waved a hand up in the air, ". . . aliens, or whatever they are, made a broadband contact. In other words, their invitation was extended to whosoever can make it up there. The Russians, of course, will get there, but," he held up a finger, "it will take them at least three days to get off the ground. Am I making myself clear?"

Baxter folded his hands over his belly and nodded. "Yes, Mr. Secretary."

The Secretary nodded. "Good. While you are there, you will be in constant touch with the Department of State, and with the White House. There will always be someone with whom you can consult on any matter."

Baxter nodded and smiled. "This is what I mean, Mr. Secretary. If all I'm supposed to do is carry a radio for the State Department, why not use another—qualified—pilot? I don't see what particular use my training in public relations will be."

The Secretary nodded. "You must know the value in eyeball-to-eyeball negotiations, Captain. When you deal with groups and committees on behalf of the Air Force, do you telephone or appear in person?"

Baxter nodded, noting the chains being locked in place. "And what am I supposed to attempt to accomplish?"

"Your meaning?"

"Mr. Secretary, the only purpose of public relations, or diplomacy for that matter, is to get people to do things that they would normally not do. If everyone did what we wanted, there would be no need for PR types or diplomats. Now, just what is it that I am supposed to get them to do?"

The Secretary frowned. "I don't know."

"You don't *know*?"

"Captain, if these beings are what they say they are—inhabitants of Earth from seventy million years ago—it is possible that they are thinking of reclaiming the planet for themselves. In such a case, discourage them." The Secretary raised his eyebrows and held out his hands. "However, they may be from another solar system and bent on conquering Earth. Then, perhaps, in either case, they might only want to land and live here. If that is the case, it may prove beneficial to have them on our side. They are obviously more advanced . . . but, then again, it might be better to sic them on the Russians." The Secretary dropped his hands into his lap. "All I can say, Baxter, is look out for the interests of your country, and the interests of your planet and the human race, while you're at it."

An hour later, as two technicians stood waiting to help him into his pressure suit, Baxter remembered that he had forgotten to telephone Boxman about the Boxman Spring account. He sat down on a cold metal bench and untied his shoes. Security on the base was locked up tighter than a million uninflated dollars, and no calls allowed. *Deb! I can't call her! She'll kill me!* He removed his red and yellow Argyle sock and held it in his hand. It had a hole in it. *I guess it's just going to be one of those days.*

Lothas studied the circle of eight faces seated around the polished black table in the half-light of the governor's conference compartment, aft of the control center. Deayl brushed a clawed hand over his muzzle, then let the hand drop to the surface of the table. "Lothas, it is still my mind that we wait no longer. The hue-muns are divided, and they have nothing that can protect them against the power. We can brush them aside."

Lothas examined the other faces. "How many of you have this mind?" Four clawed hands went forward toward the center of the table. "The mind that counsels us to wait, then, still prevails."

Deayl put two fists on the table and turned to the ones who had not voted with him. "After seventy million cycles traveling from

and to our home, we are to sit here polishing our claws? We are so close!"

Lothas noted that two who had voted with him were wavering. The desire to go home was strong, and Deayl's argument appealed to that desire. The desire twisted with no less strength in Lothas, but he held out his hands. "Our knowledge of the hue-muns is but pieces—what they are, and what they can do. The hue-muns' knowledge of us is even less—what we are, and what we can do." He lowered his hands to the table. "We must also grant that the sense of right we feel in our cause is shared by the hue-muns in their cause. They grew to dominate and control Nitola, much as we did. By what we acknowledge to be the right—"

"No!" Deayl crossed his wrists. All could hear the angry swishing of his tail across the deck. "We do not know that. What if the hue-muns are from another planet? What if they invaded our home planet, and now simply stand to defend their conquest?"

Lothas nodded. "The hue-muns must have like suspicions about us, Deayl. After all, they are on the planet; we are the ones in space ships." He brought his hands together. "We have much to learn about each other, if we are to avoid error." Lothas looked around the table and stopped on Deayl. "Do you wish another vote?"

Deayl leaned against his back rest. "No. Not at the present."

Medp entered the compartment, bowed toward those seated at the table, then turned toward Lothas. "We have just been told that the hue-muns representative has been launched. Other hue-muns, speaking the Russian, have said that the true representative will be launched in three days, and that we should refuse to see the other."

Lothas looked at the table top, then raised his glance and looked at Deayl. "We do have much to learn. Deayl, I will leave to you the task of instructing our visitor in what we can do. If the hue-muns understand *the* power, they will understand *our* power."

"Yes, Lothas."

Lothas stood and bowed toward the ones seated at the table. The others stood and bowed in return. Lothas turned toward the control center and entered, Medp at his side. "Medp, do you have contact with the representative?"

"Yes. He is called Captaincarbaxter."

Lothas nodded. "Is everything in readiness?"

"Yes. It will take him approximately a tenth of a cycle to come into safe power range."

Lothas tucked his tail between the seat and back rest of a chair before a monitor and sat down. He lifted his head and looked at Medp. "Deayl will sway some minds before the council sits again."

Medp nodded and pointed at the monitor. Nitola hung blue-white on the blackness of space. "The feeling is very strong, Lothas. All of us can see, and . . . we have been away for a very long time."

Lothas turned toward the monitor, studied once more the beautiful planet, then nodded. "Have you assembled enough information to comprehend this squabble and division among the hue-muns?"

Medp shifted his weight from one clawed foot to the other. "We can see a little. We have determined from their transmissions, and our sensor surveys support this, that there are over four billion hue-muns belonging to the various tribes."

"Four billion?"

"And, they grow in numbers every day. This does not explain all, but it lets us see a little."

Lothas changed the positions on several slotswitches, then energized a panel, causing a tiny dot to appear on the monitor. He pressed another panel, and the dot expanded until the monitor was filled with an image of a sleek, black ship, just separating from a cluster of white acceleration tubes. "Such a tiny craft. Have you come to a determination about the hue-muns rite called humor?"

"It is exasperating. The loud reaction—the laughing, chuckling, and so on—appears to be pleasurable. But, the causes of the reaction—pain, misfortune, shame, misunderstanding—all are causes of grief as well." Medp looked at the monitor. "It needs more information for sense to be made of it. Still, they are fascinating creatures. I could devote my remaining cycles to studying them."

Lothas extended a claw toward the monitor. "Part of your wish approaches now, Medp: your first specimen, Captaincarlbaxter."

Baxter was surprised at how familiar everything was. The wing drop from the mother plane, the slam of the initial and secondary burns, even the attitude correction rockets. He looked out of the tiny canopy windows, little more than a hand's breadth from his faceplate, to see himself floating on the outer limits of Earth's atmosphere. Above, the sky was star-studded black. He searched the space above for a visual sighting, but could see nothing. He

looked down, and the cluster of ships were indicated clearly on his readout screen. As he studied the screen, he finally realized what he was about to do. The frustrations of the morning, and the skull-popping briefing by the Python's pilot, plus frantic phone conversations with several Undersecretaries of State, along with a brief inspirational call from the President, faded as the thought of meeting . . . whoever they are, filled his mind.

This is a bigger moment than walking on the moon. This is what generations of movie makers and novelists have speculated about.

"Messenger, this is Mission Contol."

Baxter opened his channel. "This is Messenger. Go ahead."

"Messenger, we're patching you into a line connected with the State Department. Stand by."

Baxter listened to a series of clicks, howls, and crackles. "Captain Baxter, this is Undersecretary Wyman. Can you hear me?"

"Loud and clear, Mr. Wyman."

"Baxter, our most recent information on the Soviet mission indicates that they will have a man up in less than three days. They are sending Lavr Razin. Razin is a former cosmonaut, now attached to the Soviet mission to the U.N. Understand?"

"Affirmative. Can you tell me anything about him?"

The channel went dead for long moments, then came to life. "Baxter, since we don't know, we are assuming that none of our transmissions are secure from the . . . visitors." Another pause. "We can tell you to watch out. Razin is no Fozzie Bear, savvy?"

"Affirmative."

"Goodbye, and good luck, Baxter."

Baxter signed off with Mission Control, wishing that Undersecretary Wyman's goodbye hadn't sounded so final. He gave his instruments a casual sweep, then looked out of the left side canopy window. Green fire danced upon the Python's skin. "Captaincarlbaxter?"

"This is Messenger. Go ahead, Mission Control."

A long pause. "I am called Deayl. Are you Captaincarlbaxter?"

A strange feeling began tugging at Baxter's stomach. The voice sounded . . . ultranormal—the ideal of every midwestern radio announcer. "Yes, this is Baxter."

"Greetings. Our instruments inform us that, unless you remove the force of your engines, you will be destroyed." Baxter turned back to his own instruments. Every dial was either pegged or dead. "We have you in the grip of our power. With it, we shall

bring you into our control ship. It will not harm you, unless you fail to turn off your engines."

Baxter raised a gloved hand, hesitated, then began punching and flicking switches according to the Python's shutdown SOP. "The craft is shut down . . . Deayl."

"Sensible. I am curious, Captaincarlbaxter. What were you hue-muns seventy million years ago?"

Baxter swallowed and tried to recall his ten minute high-speed briefing on the lineage of Man. *"After all, Baxter, they may want to establish the authenticity of our claim to this planet."* "At that stage, we were prosimians—the apes hadn't evolved yet. You know what I mean when I say 'apes'?"

"Yes. We have seen them on your transmissions."

Baxter frowned. *What if those guys can pick up every radio and TV transmission on Earth? They could assemble quite a body of information.* "Interesting."

"What did the prosimians look like?"

"Well, I understand that they were small, long-tailed creatures that resembled present-day squirrels. Probably they were adept at securing food by leaping about in the trees, eating fruit, seeds, eggs—"

"Ah, the tree jontyl. I recognize them. That is very curious, Captaincarlbaxter. Tree jontyls were very well known to my race when we occupied this planet. My mouth has been watering for one for over seventy million years. I am looking forward to seeing you."

They called themselves Nitolans—Earthlings in another tongue. As his craft approached the ship in the lead center of the armada of Nitolan vessels, Baxter felt the awe he experienced when, as a boy of ten, he had been taken into St. Patrick's cathedral in New York. One hundred and ninety-seven ships, and any one of them large enough to dwarf a supertanker. The ships were long, cylindrical, and with ridges along the sides that could be retractable wings. As he observed the smooth skin and flowing configuration of the ships, Baxter realized that the vessels were designed for atmospheric flight.

"Captaincarlbaxter?"

"This is Baxter. Deayl?"

A pause. "This is Deayl. This shortening of the name; is this a friendly gesture of you hue-muns?"

"Yes . . . everybody just calls me 'Baxter'—even my wife."

"Your mate?"

Baxter nodded to himself. "Yes."

Another pause. "Very well, Baxter. I will accept this gesture in kind. I am known as Illya . . ." Baxter listened while the Nitolan supervising his approach seemed to be wrestling with a thought. "This gesture, Baxter. Understand that it does not obligate me to anything."

Baxter smiled. *This guy could have come straight from a Middle East peace conference.* "I understand, Illya. Is there anything I should know about being taken into your ship's landing bay?"

"If your craft has surface landing apparatus that is now retracted, you should prepare it. Otherwise, we can suspend your craft in a neutral field. Air will be normal to you."

Baxter noted the existence of artificial gravity. None of the ships were spinning. The Python landed on two fixed rear skids and a nose wheel. He threw the switch and felt the wheel lower and lock as his eyes confirmed the event by observing the dull green glow of the safe/go light for the landing gear. "Landing gear down and locked, Illya."

"Noted."

Baxter watched as a bay on the underside (toward Earth) of the ship opened, much like the iris of a camera. Dull red light came from the bay, and as the Python closed on the iris, Baxter felt a slight panic at the size of the opening, then at the size of the bay. *I feel like a pea rattling around in a fifty-five gallon drum!*

The Python rose just above the opening, and Baxter watched open-mouthed as the enormous iris blinked shut. His craft was gently lowered to the deck, and he let out his breath. He checked his instruments, shut down the works, and waited. In the distance he could see four jumbo-jet-sized ships parked off to the side. The bay switched from red to yellow light, and Baxter's mouth remained open as a hatch opened and a delegation of grey-green long necked, heavy tailed creatures entered. They walked toward him on powerful legs with clawed feet. Although bipedal, they stooped forward, carrying their long, thin arms in front. Baxter's gaze went from the clawed toes to the clawed fingers, then to the gleaming rows of teeth. As he unstrapped, removed his helmet and cracked the Python's canopy, Baxter ran a dry tongue over equally dry lips. He stood, stepped over the side of the cockpit, pushing his toes into the step holes, and climbed down from his craft. He turned as the delegation of creatures came to a halt. Stooped over, the creatures were only a little taller than himself.



One of them rotated its body, bringing its neck and head well above the others. Baxter cleared his throat and croaked. "I bring you greetings from the President of the United States."

Deayl watched the scene of the docking bay reception a moment longer, then closed his eyes. *If so long ago we had not abandoned our gods. If I could only lay my burden at the feet of Sisil, or old Fane.* He extended a claw and shut off the monitor. Energizing another monitor, he watched Nitola, and his pain eased. *I do not do it for myself, but for all of us.* He kept his eyes on the image as he pressed the signal to Lothas's quarters.

"Lothas."

"Deayl, Lothas. Baxter has landed safely, and Medp brings him now to the quarters prepared for him."

"Deayl, is 'Baxter' the representative's name of friendship?"

Deayl lowered his muzzle to his chest. "Yes. And I extended mine to him."

"This is good. He shall rest for the remainder of the cycle, then you shall demonstrate to him the power. I shall meet with him after."

"All will be as you wish, Lothas."

"Deayl, with your mind concerning the return to Nitola, exchanging names with the hue-muns was a fine gesture." A pause, as though Lothas expected some sort of comment. "Deayl, I know you disapprove of my direction as governor, but I know you to be a strong and determined champion of our race. I would exchange names with you. I am called 'Dimmis'."

Deayl wiped a shaking hand over his muzzle, then nodded. "I am called 'Illya.'" Deayl reached for the panel. "A home for you, Dimmis."

"A home for you, Illya."

Deayl pressed the panel, extended his fingers, and placed his palms over his eyes. *Ah! Ah, it comes! The pain returns. How many disgraces must I bring upon myself before my task is done? How many?*

In his quarters, Baxter sagged as he tried to get comfortable in the strange chair. As near as he could figure it, he had just completed a three kilometer dead run from the docking bay, trying to keep up with the delegation. He opened his eyes and looked around at the room. The white bulkheads were bare, except for the three iris-like doors. One door led to a closet, another to the corridor, and the third to a bathroom straight from one of Baxter's more imaginative nightmares. He had been literally relieved to find that he could use the equipment, although with some difficulty. On the deck, several thick cushions were arranged for sleeping. His chair had a black metal frame and was upholstered with a soft, green fabric. Baxter sat on one side of the seat, since the center-rear was open to comfortably seat the Nitolan tail. The backrest, tilted forward to accommodate the creatures' stooping backs, dug into Baxter's shoulderblades. His ankles reached to the edge of the seat.

He reached to his belt and pressed the switch to his radio that, through the relay set in the Python, would keep him in touch with Earth. "Mission control, this is Messenger."

"Messenger, report on your situation."

"I'm established in quarters. At the moment, I'm supposed to be resting . . . although that's going to be a little difficult. At about oh four hundred GMT tomorrow, I'll be taken on some kind of demonstration, then meet Lothas. The best their language mechanics can make out of his title is 'governor.' Then whatever negotiations there will be will begin."

"Acknowledged, Messenger. From now on, until you begin preparations for reentry, your communications will be handled by the State Department mission control. Stand by."

Baxter looked down from the chair at the knee-high thick pallet on the deck that would serve him as a bed during his stay. "Baxter, this is Wyman. Do you read?"

"Five by five, Mr. Wyman."

"Good. What have you found out?"

"The Nitolans, first. They look like a cross between a kangaroo, an ostrich and an alligator; general shape for the first, eyes for the second, claws and teeth for the third—lots of teeth. The head is pretty large."

"I understand, Baxter. The ships?"

"Incredible."

"Could you be more specific?"

"The ships are enormous. I can't even tell you how wide they are. Everything seemed to extend out of sight. But I'm pretty sure they are monitoring our commercial radio and television broadcasts. The lingpile—the thing they use to convert their language into and out of English—talks like Merv Griffin. They have some sort of force field or tractor beam that pulled me into their lead ship, and I think the same thing allows them to simulate gravity on board. Gravity appears to be Earth normal, and there appears to be no inducement of this by centrifugal force or other physical means. That's it, except that they seem friendly—and curious."

"Baxter, do they appear secretive or evasive about themselves?"

Baxter shook his head. "Not that I could tell. In fact, they provided me with a reader of some kind in case I wanted some diversion when I wasn't sleeping. They prepared something for me that contains a nutshell history of them, their mission, customs, and so on."

"You will begin on it at once, Baxter."

"Mr. Wyman, I'm a little bushed right now—"

"At once, Baxter! Until we know more, all of us are groping in the dark—including you. Now, do your homework."

"Yessir."

"One more thing, Baxter."

"Go ahead."

"We must establish to a certainty from where they came. If they, in fact, have come from Earth's past, we must be sure. Do you have any indications other than their appearance? Things

they've said? Answers to your questions?"

"Mr. Wyman, I haven't asked them Babe Ruth's all-time batting average, or the words to 'Yankee Doodle', if that's what you're talking about."

"I understand. I'll see about preparing a suitable list of questions—things based on our knowledge of the period they claim to be from. Is there anything you need?"

Baxter thought a moment. "How is all this striking the public?"

"Officially, we are denying everything, and so are the Soviets, but rumors are spreading fast. Too many people picked up that initial broadband contact, although it hasn't grown serious yet."

"What about the Russian?"

"Launch is still go for the day after tomorrow. We still don't have a line on what they plan to pull. That it?"

"Yes. Baxter out." He released the switch, sighed and slid to the front edge of the seat, then dropped to the floor. The edge of the seat came to his waist. Baxter walked to the door panel, reached up and pressed the platter-sized button with both hands. Part of the wall dilated iris-fashion, exposing a wide corridor and a Nitolan standing guard. The creature walked to the opening, its heavy tail scraping harshly against the deck, and stooped in Baxter's direction.

"May I help you, Captaincarlbaxter? I am Simdna."

Baxter nodded and pointed at the swept-screened contraption attached to a chair by a swinging metal brace. "Yes. Medp said that I could use the reader if I wanted, but I am ignorant of its operation." Baxter walked to the reader chair, climbed up and settled in as the Nitolan followed, then pushed the reader more closely to the chair. "Now, what do I do?"

Simdna picked up two pancake-sized tabs and held them out to Baxter. "Put one on each side of your head. They will attach themselves."

Baxter held one tab in each hand, then held them to the sides of his head. "What now?"

Simdna pointed toward a panel. "This will begin the record." He pointed at a slotswitch. "The more you pull this toward you, the faster will run the record."

Baxter nodded. "Thank you. I don't think I'll need anything else."

Simdna turned, left the room and the door closed after him. Baxter studied the screen then looked at the panel for starting. He leaned forward and pushed it with the palm of his hand. At

once, a feeling of mild intoxication swept him. It stayed as he pulled the switch, and images and narratives attacked his senses at high input levels. He realized this, but realized also that he understood it all, as fast as it was. He pulled again at the slotswitch. . . .

... The Nitolans were a highly evolved race, with self-made imperatives of right and wrong, a structured social system, great cities, long before man thought these even to exist. In the midst of the great reptiles, the Nitolans had science, law, and the creation of wealth, for the Power was theirs. They studied truth

... And the knowing ones read their instruments and saw the death of every creature that could not hide within the mud, or beneath the waters. The night brightstar would grow in brilliance, until it washed all other stars from the sky, and even paled Amasaat from the day sky. To survive, the Nitolans must leave the planet for as long as the planet took to again become green and alive with creatures.

While the wisest of the knowing ones searched the future for a time that would serve the race, others of the knowing ones spread across Nitola to tell the things that they had learned. "We must leave Nitola, else the race shall die." . . . Many believed, and helped to construct the great ships that would protect precious cargo through the vacuum of space and the emptiness of time. Others did not believe, and the Power was turned against itself as the factions decided the issue through blood.

As the ships were completed, the war concluded, and the victors gathered among the ships to depart Nitola.

The knowing ones looked at their planet and saw the ravaged cities, the gaping wounds of mines and quarries, their own structures for building the ships. They wondered if this evidence, if left behind, would lead an alien visitor or a newly evolved race to find them and destroy them as they crossed the void. The Power was turned against the cities, and the other marks they had made, removing all trace of their existence. Then they swept the planet and removed all traces of the substance of the Power, should they return and find a newly evolved race using the Power and turning it against the homecomers.

When all was done, the ships were filled, the travelers' life processes slowed, and the journey begun

"There are many of us who share your mind, Deayl."

Deayl looked from Nozn to his companion Suleth, then back to Nozn. "My mind has been voted down by the council. What brings you to my quarters?"

Nozn studied Deayl. "We read the piles and can see what the hue-muns do. Many of us would not wait until the creatures render Nitola unfit for habitation."

Deayl turned away and studied a blank wall. "If there are such as you talk about, they would disgrace themselves by acting against the common mind."

Suleth looked from Nozn to Deayl. "We have had enough of these word games, Deayl. Do you plan to take an action?"

"Action?"

Suleth nodded. "Will you lead us?"

Deayl lowered himself to his sleeping pallet, placed his head on his cushion, and looked up at the overhead. "I will speak with you two later."

Nozn placed a clawed hand on Suleth's arm to quiet him, then nodded at Deayl. "It is my mind that this task would be bonded by our exchanging of names. Is this your mind as well, Deayl?"

Deayl rolled over and propped himself up with an elbow. His black eyes fixed Nozn to the deck. "No! Treason to our race is no excuse for friendship!" He lowered himself back to his cushion. "Leave me now. I will call you if I wish to converse further."

Nozn and Suleth bowed and left Deayl's quarters. Deayl rolled to his left side, his eyes tightly shut. *I belittle myself enough by the enterprise I have undertaken. I shall not suck others into the same mire.* He opened his eyes and spoke to a dark corner of the compartment. "You are my governor, Lothas, and you speak for the common mind." Deayl sighed. "But, you stand between us and our home. Isn't yours the greater crime?" Deayl closed his eyes and tossed. The question was yet to be answered in his own mind.

Midway through the next planetary cycle, Baxter bid farewell to his Nitolan friend Illya, then entered his quarters and flopped onto his sleeping pallet. He detached the insulated gloves from his suit, threw them aside and placed his hands against his cheeks. His face felt drained of color. Without rising, Baxter keyed his transceiver. "State, this is Messenger." He opened his eyes and looked at the overhead. "State, this is Messenger. Do you read?"

"Go ahead, Baxter. This is Wyman."

Baxter licked his lips, took a deep breath, then sat up. "Wyman, are there any manned missions on the Moon—secret things that I

don't know about?"

"I'm sure there aren't, but I can check it for you. Is it important?"

"It's important. I also want to know if the Soviets have anything on the Lunar surface, and if so, where."

"Understood. What's going on, Baxter?"

Baxter shook his head. *I'm rattled, that's what's going on. Calm down.* "I was taken on a demonstration today. It's a thing they call 'the power'. I saw a quarter of the Lunar surface turned into glass in less time than it's taking me to tell you about it." Baxter licked his lips again. "My guide took me down about two hours later and I walked the surface. The dark side now has a *mare* that makes Imbrium, Serenity, and Tranquillity together look like a wading pool." The radio remained silent. "Did you copy that, Wyman?"

"Baxter, what is your feeling about it?"

Baxter's eyes widened. "My *feeling*? How in the Hell do you think I feel about it? If these lizards want to, they can fry my entire planet in about twenty minutes!"

"What I meant, Baxter, is your feeling about the purpose of the demonstration."

Baxter thought a moment, then flushed. "I suppose its purpose was to produce exactly the kind of hysterical gibbering I've been doing; correct?"

"Correct. Look, Baxter; you are not dealing* with an overweight Congressional committee or the local school board. You can't make a mistake, then go back and patch it up later with an apology or some syrup from the White House. You have to keep your head clear and your feelings out of it, while you look for the angles, feel out the edges, find out where to push, and where to back off. You understand?"

Baxter shook his head. "You diplomatic types have all the sensitivity of an oyster."

State paused for a long moment. "It's not lack of feelings, Baxter; it's called 'guts.' Grow some. Wyman out."

Baxter released the key on his transceiver, stood, and began shucking his pressure suit. *At least I wasn't as rattled as Deayl.* The Nitolan had walked the Lunar surface with him, and had been strangely quiet. Deayl's answers to direct questions were brief, shaken, and almost incoherent. *I wonder what my old buddy Illya was nervous about?*

The iris to Baxter's compartment opened and the Nitolan called

Simdna entered. "I extend an invitation from Lothas, our governor, to meet with him in private before you meet with the full council."

Baxter nodded. "I am most happy to accept his invitation." *I'm already beginning to talk like a diplomat.* "When does Lothas wish to see me?"

"Is it convenient for you to come now?"

"Yes."

Simdna backed away from the door and held out a clawed hand. "Then, Lothas would see you now."

On the way to his quarters, Deayl sagged against the corridor wall. He turned his head up, then closed his eyes and let his muzzle drop to his chest. The claws on his fingers dug into his palms, the pain almost blotting out the waves of self-condemnation that threatened to drive his mind empty. He heard the sound of someone approaching, and he pushed himself away from the wall and opened his eyes. It was Nozn.

"There you are, Deayl."

"Here I am."

Nozn turned back, and seeing the corridor empty, returned his gaze to Deayl. "The hue-mun still lives, Deayl. If you cannot perform the task, leave it to someone who can."

Deayl hissed, his eyes sparking. "You forget your place, Nozn!"

Nozn closed his eyes and performed a shallow bow. "I meant no disrespect, Deayl."

"I shall do what needs to be done, and with no one's help. That I can keep all others but myself clean from this act is my only claim to honor. Do not take this from me by becoming involved."

Nozn bowed again. "It will be as you wish, Deayl." He stood and half-turned to go. "But, if you should fail, there are others who will not." Nozn nodded once, then moved off down the corridor. Deayl placed a hand against the corridor wall, turned his gaze toward the deck plates, and saw the glassy surface of Naal, the child-moon of Nitola. Baxter had stood on the thin crust of the molten pool, and it would have taken only a slight shove to have removed the creature from existence. The Council would have accepted the event as an accident, while the hue-muns on the planet would have . . . *Are the hue-muns that sensitive that they would attempt retaliation on the basis of one suspicious death? Will they adopt an attitude that will make their removal the only option left to the Council, for just one death?* Deayl wiped his hand over his

muzzle, then let it drop to his side. *Or, will the hue-muns' tribes be more reflective, making the murder I will commit a futile gesture?*

Deayl, still supporting himself by moving his hand along the corridor wall, walked the few remaining steps to his quarters. He pressed the panel and the iris opened. Inside, the compartment was black, making the door appear as the dark, slathering maw of some nightmare begotten creature. *If the hue-muns know it is a murder, the Council will as well. But, perhaps this is the only way—exchange my future for the future of my race.* Deayl stepped into the iris, and it closed behind him.

Baxter stared at the upholstered wing-backed chair in disbelief. From its wooden claw-on-ball legs to the garish oranges and yellows of the fabric, the chair appeared to have been cloned from a discount department store's loss leader. He looked over to Lothas. The Nitolan governor reclined on several of the familiar thick cushions. "Where did you get this?" Baxter held out a hand toward the chair.

"Do you like it? I hope it is comfortable."

Baxter lowered himself into it, did one or two experimental bounces, then leaned back and crossed his legs. "It's fine."

"That pleases me, Captaincarlbaxter. It was constructed according to information gleaned from your television transmissions. It was felt that you might find our furniture out of size."

Baxter smiled. "Thank you very much...do I call you 'governor'?"

"I am Lothas. If you would exchange names, I am called Dimmis."

Baxter nodded. "Very well, Dimmis. I am called Baxter. I appreciate the chair very much."

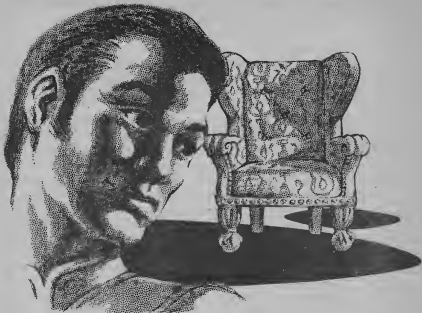
"Another like it will be placed in your quarters, and one more in the conference compartment where you will meet with my council."

"Excellent." Baxter wondered if he should mention something about the horrible pattern, but decided against it.

"We can prepare you one of your beds, if you wish."

Baxter held up his hands. "Thank you, but that would be quite unnecessary. I find the cushions in my quarters quite comfortable."

Lothas nodded. "Baxter, you know of us and our mission, do you not?"



"Yes. I watched the record you prepared before I slept."

The governor nodded again. "Still, you know too little of us, and we, too little of you." The Nitolan sat up and pulled a table console to where he could reach it. "The knowing ones have amassed a great deal of information from your radio and television, and from the visual and sensor surveys they have done. Still, we know too little to judge properly what we should do."

Baxter nodded. *These lizards don't know what to do any more than I do.* "I understand. If you will tell me the information you want, perhaps I can arrange to get it for you."

"We understand that your information storage piles can talk to each other, is this not true?"

Baxter nodded. "Yes. Computers."

"The information we need appears to be contained in a number of your . . . computers. I would like to send three of our knowing ones down to a place that can talk to your computers."

"I'll see if I can arrange it."

Lothas sat quietly for a moment, then lifted his head. "There is much, Baxter, that we must learn about each other as well."

Baxter followed the direction of the governor's gaze and saw

nothing but an inverted green dome set into the overhead. He looked back at Lothas and shrugged. "I agree, we must..."

Baxter's vision blurred as Lothas removed a hand from the console beside his cushion bed.

"It is good you agreed, Baxter. Trust is important." Lothas's hand rose to the console, and Baxter felt himself expanding, whirling up and out, as the compartment went black.

He felt his gorge rise as he realized he was standing off to one side observing while another thumbed and sorted through his memories. From memories to automatized interactions and responses as memories were let to play, mesh, divide, and redivide according to their own dictates...the job; the goddamned job...still haven't called Boxman. Deb. That damned Argyle sock... He felt his thoughts pulled from one area, then forced into another...a documentary; stacking them up like cordwood in Auschwitz...Eichmann in a little glass booth...Korea, Lebanon, Vietnam, Gaza, Suez, South Afr... His thoughts plunged down a dimly lit hole...a little red balsa wood plane with a wind up...Christmas, and Grandma's there, so we'll say grace this time...high school, college,...planes at the grass strip near Evanston...testing at Lockheed...Air Force... A cesspool of repressed fear yawned before him...The Python, panic...what to do, God, what to do?... the size of them... why me?...

Baxter opened his eyes and saw Lothas removing his hand from the console. The Nitolan stared at him for a long time, then held its hands over its eyes for a moment. Lothas let his hands fall to his knees. "Baxter...you, your race...you are everything..." He waved a hand toward his compartment's iris. "Please leave. Take no offense, but please leave. I must think."

Baxter stood, a feeling of panic rising in his chest. He watched as Lothas put his head down on the cushions and appeared to sleep.

Back in his quarters, seated in a duplicate of the wing-backed chair, Baxter shook his head at his transceiver. "I don't know, Wyman. After I woke up, Lothas seemed very upset. Then he asked me to leave."

"I don't know what to make of it, Baxter. You think it's some kind of mind reading machine?"

"I'm sure of it. Should I make a break for it? I know the way to

the docking bay, and—"

"No. Baxter, get control of yourself. Since we don't have any plans, Lothas couldn't have uncovered any hostile intentions. We just don't know, so sit tight until we do."

"Sit tight."

"You read me correctly."

Baxter listened to the static as he reviewed language forms he had not used since high school. He let out his breath. "Wyman, has anyone gotten in touch with Deb yet?"

"Deb?"

"My wife."

"I'm sure someone has. Is it important?"

Baxter could feel himself becoming wild eyed again, and he took several deep breaths. "You're damn right it's important, Wyman. I want you—you personally—to make sure that my wife is notified."

"Very well. I'll let you know as soon as I can about that visit from your friends. There shouldn't be any problems with letting them down—the slip-stick jockeys down here are as curious about them as they are about us. As far as access to computers, it depends on what they want. We aren't about to hand over classified information to a potential enemy. Do you know what they're interested in?"

"No." Baxter wiped a hand over his face. The hand came away wet. "What about the Russian?"

"No change. Lift off is tomorrow. We still don't have a reading on the approach he's going to use."

Baxter laughed. "I think I do. He'll probably use the same one I'm using: sort of a combination of Alice in Wonderland with Blind Man's Bluff."

"Baxter?"

"Yeah?"

"Hang in there, Baxter. Okay?"

Baxter closed his eyes and nodded. "No sweat. And thanks. Baxter out." He released the key on his transceiver and studied the overhead. It was eggshell white, smooth and seamless. Images from his stay under Lothas's machine flashed through his mind, and he gripped the armrests of the chair to keep his hands from shaking. *I don't believe it! I'm scared. I am finger-shaking, head-sweating, pants-wetting scared.*

The iris to his compartment opened, and he jumped and began backing away from the door. It was Simdna. "Captaincarlbaxter?"

Baxter held his head back as the muscles at the back of his neck knotted. "What is it, Simdna?"

"Lothas wishes to inform you that the council meeting has been postponed."

Baxter studied the guard, then nodded. "Thank you."

Simdna left, the door closing behind him. Baxter lowered himself to the knee-high pallet on the deck and exhaled. "Now what?"

Baxter tossed on his pallet, his fingers clawing at the throats of his mind's monsters. *He saw himself, a fraud in man's clothing. A creature of petty evasion, weak, frightened—above all, frightened. Thin hands reached out to work levers and turn knobs; watery eyes, reflective and darting, sought out lights and dials. Shaking and pain-whipped, the creature operated a machine. Baxter's view faded back, through the wall of the machine, into the light. He stumbled back as his view of the machine reached a point of recognition. With thick painted lips, gleaming cardboard teeth, and dime store flashlight bulbs for eyes, Carl Baxter raised a hand in his direction . . . the machine-Baxter buzzed as the creature inside screamed . . .*

Baxter bolted upright, looked around the compartment, then wrapped his arms around his body to still the shaking. A low buzzing sound drew his attention to the transceiver on the wing-back chair. Baxter stood, walked over to the chair, and keyed the instrument. "This is Baxter."

"Wyman here."

"What is it, Wyman?"

"Hold on for a moment while we patch you back through Mission Control. Remember, you won't have long."

"Wyman . . ." Baxter could hear the static shifts as Wyman went out and unseen hands fed unseen signals over new routes.

"Baxter?" The voice was clear, husky, yet soft.

Baxter stared at the transceiver. "Deb? Is that you?"

Baxter heard a familiar sniff, and knew she would be nodding her head and crying. "What have you gotten yourself into now?"

He swallowed, picked up the transceiver, and sat in the chair. "This is a fine mess I've gotten us in, Ollie." Baxter felt the tears welling in his eyes. "Has anyone explained . . . you know."

"Yes. I see from your new friends down here that you've become a real social climber." She laughed. "You want to know who sat up and held my hand last night?"

"Who?"

"Her husband lives in a white house." She sniffed again. "And you voted for the other one."

Baxter smiled and shook his head. "This'll teach you to mismatch my socks. Hey, you'd never believe the bathroom in my quarters. There's a machine in there that can clean and dry my uniform and underwear in twenty seconds flat—and you should see my laundress. His name's Simdna . . . cooks too—"

"Baxter, I love you."

He bit his lower lip. "Deb, is there anyone else listening in?"

"Only three or four hundred people that I know of."

Baxter shut his eyes. "Deb . . . there's something I . . . something I want to tell you."

"I know."

"How do you know?"

"I've been holding down my side of your bed for a bunch of years, Baxter. I know. You can handle it. Do you understand that?"

"Sure."

"I know you don't believe it, Baxter, but it's true. You've got what it takes."

"Deb . . ."

"I have to go now, Baxter. Don't forget where you live."

"The house with the view, right?"

"Right." The audio filled with static as the frequency was returned to State. *I love you, Deb. God, do I need you.*

"Baxter, this is Wyman."

"Go ahead."

"It's go on the trip. Mission Control will get in touch with the Nitolan mission directly regarding the landing field and time. Still go on the Russian."

Baxter nodded. "I copy. And Wyman?"

"Yes, Baxter?"

"Thanks."

"You're welcome, but for what?"

"You know. The call to my wife."

Wyman chuckled. "Don't thank me, Baxter. That call was made at the orders of the President because of an urgent request by your friend Lothas. I thought you knew."

"Lothas requested that you put me in touch with my wife?"

"Affirmative. What do you make of it?"

What I make of it is I needed, very badly, to hear from Deb—to

have her tell me I can handle it—to prop up my crumbling self-esteem. That, and that Lothas knew that. “I haven’t a clue. I’ll keep in touch.”

“Wyman out.”

Baxter released the key, leaned his head back against the chair, and fell into a troubled sleep.

In the control center, Lothas leaned against his chair’s backrest while Medp shut down the receiver. “Medp, why would Baxter forget where he lives?”

Medp swung his chair in the governor’s direction. “It is a joke, Lothas. It is said as a substitute for ‘I want you to come home.’”

Lothas held up a hand toward the receiver. “Baxter did not laugh at the joke.”

Medp shook his head. “There are jokes not to be laughed at. It is but another facet to this humor that still eludes me.”

Lothas let his hand drop to his knee. “Why did his mate, Deb, not simply say ‘I want you to come home’? There would be less confusion.”

“Lothas, I am sure Baxter understood. This is what he meant by saying ‘the house with the view,’ when, from what you said, Baxter believes his mate to detest the view from their house. Another joke.”

Lothas hissed, then let his muzzle drop to his chest as he passed a hand over one eye. “The melding showed me Baxter’s mind, but it did not give me an understanding of it. On the outside, he functions as you or I; inside he is a warren of screaming agonies.” Lothas turned to Medp. “I have never witnessed such confusion . . . such pain.” He leaned forward. “Do the creatures use the humor to hide the things they feel from others?”

Medp nodded. “And from themselves as well.”

“How can they hide what they are from themselves? It is impossible.”

“You saw it for yourself, Lothas. All I have seen shows them to be complex, contradictory, self-deceptive, and even self-destructive.”

Lothas leaned back in his chair. “Medp, the melding process not only makes clear to me the workings of Baxter’s mind, you know that it will do the same for him. If what you say is true—as improbable as it sounds—then Baxter will have seen himself for the first time.”

Medp nodded. “Possible.”

"We cannot hide our motives from our own minds; to do so would cause us much pain and confusion. But, if a creature cannot see himself, do we damage it by allowing it to discover its motives?"

Medp leaned back and looked at the overhead. He then lowered his head and turned toward Lothas. "It is outside of my experience to imagine that knowledge of oneself could be damaging. But the hue-muns are also outside of my experience. Perhaps it could be damaging." Medp turned to a monitor displaying but a crescent of night-shrouded Nitola. "A more important question, Lothas, is can we live together with such creatures in peace?" Medp looked at Lothas. "My mind thinks not."

Lothas looked at the monitor and nodded. "Perhaps Deayl is in the right." He turned to Medp. "In any event, we shall know once you obtain the information from their computers. Prepare your mission well, Medp. The future of this curious race may depend upon what you find. Our own futures, as well."

In his private quarters, Lothas reclined on his cushions and studied the human sitting nervously in the wing-backed chair. Baxter would cross his legs, uncross them, then cross them again. His eyes would dart about, then look in one direction for long, unblinking minutes. "Are you well, Baxter?"

The human raised his glance and looked at the Nitolan. "Well?" He nodded, then smiled. "Yes, and you?"

Lothas nodded. "I am well." He watched as the human's appearance altered to become calm, his motions unhurried. *Perhaps this denial of the self is a means of human survival.*

"What did you wish to see me about, Dimmis? Has the new meeting with the council been arranged?"

"No. Baxter, we are very different creatures from each other."

Baxter laughed. "This much even I could see."

Lothas waited for the human to quiet himself, then he sat up. "I do not talk of skin, bones, shape, and size, Baxter." Lothas held up a five fingered hand. "Our bone structures are similar, we are both carbon-based lifeforms—two eyes, two nostrils, two arms, two legs. I believe your race originated on my planet, as you must believe that my race did as well."

Baxter shrugged. "That judgement is for others to make, Dimmis. But, for myself, I believe you are what you say you are."

Lothas nodded. "There is a difference. Your thinking, Baxter; it is *alien*. But I can see it is alien by your own choosing. What I do

not see is why. I know of no form of life that acts against its interests by choice, except yours."

Baxter frowned, then wiped a hand over his face. "I'm not sure I know what you mean." His hand came away wet. "Do you mean wars?"

Lothas shook his head. "No. We have had our own wars, Baxter. Wars can be an expression of self-interest." The Nitolan pointed a clawed finger at the human. "I talk about your thinking, and how your thinking makes you act. During the meld, among your many pains, I saw the need for your mate. Yet, when you talked with her, you make jokes; you hide the things you mean to say."

Baxter flushed. "That's my business. I would like to thank you for making the request."

"Is this what you mean, Baxter, or is this a joke? I do not understand. Understand that, to my mind, there are only a few ways that this situation can be resolved: First, we end human life on Nitola and resume control of our planet. We can do this."

Baxter blanched, then leaned forward, his elbows on the chair's armrests. "That would gain you nothing but a dead planet, Dimmis. To kill us from orbit, you will have to kill everything. If you land to kill us, then we can fight back, and we will."

Lothas nodded. "This is why my mind has not been in favor of this choice, although the minds of many Nitolans do favor it." Lothas waved a hand, dismissing the option. "Of course, I think it impossible that your race could attack and destroy mine. We have the Power. This leaves us with both races living together on Nitola, in some manner."

Baxter nodded as he exhaled a nervous breath. "I would prefer that."

"But the more we examine that course, Baxter, the more impossible it appears. We see you destroying the home planet, and this we could not tolerate. But your tribes are so divided, how could they agree to stop? I find that you do not represent all humans, but only a small number. The Russian also represents only a small number. Yet, even so, you could not agree. I see that your tribes would try to use us each to gain an advantage over the other." Lothas shook his head. "Another way is for the humans to leave Nitola."

"Leave?"

"Yes. Find another planet."

Baxter leaned back in his chair and stared at Lothas. He placed

a hand over his chest as he felt his heart beating, threatening to come loose of its supports. "How can we?"

"We have these ships, and we can build you more. Enough to vacate the planet."

Impossible! Baxter shook his head as he remembered that it was not his decision to make. "I don't know, Dimmis. It seems unlikely, but I will talk with my people."

"Such of them as you represent."

Baxter nodded. "Yes." He stood.

"Before you go, Baxter, you should understand that these talks with me and with the council are different in substance to us than they are to you."

"How do you mean?"

"In you I read an attitude . . . a desire to use this experience to gain an advantage for your race. To us, we are learning. When we know enough, the proper choice will become obvious. Such a choice is not something subject to concession or negotiation. We will see where the right is, then we shall pursue it. This right we seek is independent of either my desires—or yours."

Baxter gently rubbed his temples as he reviewed his meeting with Lothas and waited for Wyman to get back to him. State had not been pleased. *The whole damned thing is falling apart.* Baxter leaned back in the chair, thinking. *This whole thing—it's like trying to stop the fall of mountains by stringing spools of rotting thread across the Grand Canyon.*

Lothas had pointed at the dying oceans, the poison air, the sheer number of human mouths. *"Still, Dimmis, we have a right to our future—and, on Earth. It is the future you committed us to. We didn't bail out and take the power with us—you did. If you had left us the power, perhaps things would have been different."*

Lothas had swept the argument away with a wave of his clawed hand. *"As lifeforms, you are freaks—self-destructive, murdering freaks. And what is your answer? 'We are only human.' You use this phrase to excuse it all. But, Baxter, this defines you as a lifeform; it defines you as flawed, unworthy. And this is how you define yourselves."* The Nitolan had leaned forward. *"If we had left you the Power, there would be none of you left."*

Baxter leaned forward, placed his elbows on his knees, then lowered his face into his hands. He had reported the talk to Wyman. *"Baxter, are you insane?"*

"Wyman, dammit, we both know I didn't ask for this! I knew I

didn't know what I was doing, and so did you people! Now Lothas knows it, too. Wyman, you have got to get someone else up here. When Medp takes down the ship to get at the computers, what about putting a State Department mission—or something from the U.N.—on board?"

There had been a long silence, then Wyman came back on the air. "I have to talk to some people about all of this Baxter, then I'll get back to you. One thing I can tell you now: if and when you have any more meetings with Lothas or with his council, keep your transceiver keyed and your mouth shut. We shall inform Lothas that State will attempt to deal directly with him. Understood?"

Baxter let his head fall between his hands, then began kneading the knot of muscles at the back of his neck. Wyman had taken the responsibility off of him, except for working the transceiver—something Baxter felt confident enough to handle. But, still, he felt no relief. He leaned back in the chair and bit his lower lip. He was coming across as a complaining, whining, incompetent loser. "Dammit, Wyman," he said to the overhead, "don't you understand that they're messing with my mind? How would you weather a good look at yourself, you brass-plated diplomat?"

His transceiver buzzed, and he pressed the key. "This is Baxter."

"Wyman. Well, boy, it looks as though you have royally screwed up the works. To tell you the truth, I wouldn't give two cents for the chances your tailfeathers have if you ever set foot in this country again."

"It's nice hearing from you too, Wyman."

"Okay, here is the drill. We have put together a mission, and we're waiting now on Lothas or his council to decide whether or not to take them on board. The communications we've had were not encouraging. Just in case, we're going on full alert, and a spit-and-baling-wire arrangement is being put together to coordinate the military defenses of every nation on Earth. By the way, we've had at least one break. The Russian isn't going to make it. He bought it during the launch—"

"Wyman, you twit! A *break*? You call that a *break*? What brand of bumwad are you using for brains? I need *help* up here, and fast—"

"Grow up, Baxter! Help, from the Soviets?"

Baxter shook his head. "No, Wyman. Help from another human." Baxter felt himself giggling. "You haven't gotten the message yet—you people down there. We're all in this to-

gether . . . all of us." He shook his head as his giggles turned into quiet tears. The transceiver clicked, then clicked again. Wyman had keyed in, then keyed out—nothing to say.

The transceiver clicked again. "Remember, Baxter. Do nothing without authorization, and make sure they understand that, from now on, they will be dealing with us directly. Wyman out."

Baxter released the key on the transceiver. He shrugged, released the catch on his belt, and stood, leaving the belt and transceiver in the chair. The iris to his compartment opened and Simdna entered. "Captain carlbaxter, Deayl would speak with you if it is your desire."

Baxter looked at the transceiver on the chair, then back at Simdna. "Yes. I will see him." Simdna left through the iris and Deayl entered. "It is good to see you again, Illya. Are you feeling better?"

Deayl stared down at the human, the creature's image wavered before his eyes. *Better? Do I feel better?* The iris closed and Deayl took a step toward the human. "Baxter, we have exchanged names."

"Yes, Illya."

Deayl wiped a clawed hand over his muzzle. "Do you remember I said this obligates me to nothing?"

"I remember." Baxter frowned, then looked once again at the transceiver. He turned back and faced the Nitolan. Deayl had come another step closer, his frightful clawed hands were outstretched.

"Still, I must tell you why I do this, Baxter."

Baxter began edging away from the Nitolan. "Do what?"

"Baxter, the knowing ones have left for Nitola to talk with your computers. The humans below struggle with the same problem: how are we to live together in peace—a thing that can never be."

"How do you know? You're upset—"

"The longer we wait to take back our planet, the harder it will be. Even now the humans prepare. But, I must make this clear to the council, and to do this I must provoke the humans. You see, I must murder you."

"Murder . . ." Baxter watched as Deayl came closer, his black, dagger-sized claws glowing softly in the light of the compartment. The hands struck out, and Baxter ducked. He turned, grabbed the wing-backed chair and threw it at the Nitolan. Deayl swatted it away, splintering it, and smashing the transceiver. Before the pieces hit the deck, Baxter reached the panel controlling the iris

and slapped it with both hands. "Simdna! For God's sake, Simdna!" As the iris opened, Baxter felt Deayl's hands encircling his chest, the long claws ripping into his lungs . . .

A week passed, and many of those on Earth marveled at how easily arms and territorial agreements between nations could be reached, now that they—in the face of the power—had become meaningless. The strange Nitolan vessel squatted silently next to the hangar where human technicians maintained the links between the ship and a vast array of computers located in almost every nation of Earth. No one saw the Nitolans, and for a week, there had been no communications from either Lothas or Baxter.

In a motel, near the airbase, a diplomatic mission headed by the secretary of state waited impatiently to board the Nitolan ship. On the other side of the field, a task force of commandos practiced their assault plan on the vessel. In Washington, Moscow, Paris, London, Peking, Cairo . . . haggard faces circled cup- and butt-littered tables, waiting by brand new communication facilities for some kind—any kind—of news.

The base Commander, General Stayer, heard it first. A shaken voice—one of the technicians in the hangar. No warning. The Nitolans had disconnected the links to the hangar, then they rose into the night.

The waiting began in earnest.

Deb Baxter listened to the rain spatter against the window and let her arm fall on the empty side of the bed. She opened her hand, palm down, and caressed the overstuffed quilt. She made a fist, then rolled over and pulled a cigarette from a half-empty pack on her night stand. She had been three years off cigarettes, and she realized as she struck a match that she was already back to two packs a day. In the light of the match, her eyes were puffy, with dark circles. She touched the match to the end of the cigarette, then shook it out. Taking a pillow and propping it up against the headboard, she propped herself up against it and studied the dark surrounding the warm coal that brightened with each drag she took.

She had faced that Baxter wasn't coming back, learned she could survive the fact, then accepted it—almost. Nights without sleeping pills still became vigils. She threw off the covers, swung her legs to the cold floor and walked barefooted to the bedroom window. Holding the dark curtain aside, she stared at the security

lights surrounding the experimental parking ramp. Somewhere out there, some poor jerk who had been conned off the farm with promises of becoming an 'Aerospace Technician' was walking guard, rifle muzzle down, head and shoulders hunched under a poncho against the rain. She shook her head. "Stupid. It's not even supposed to rain in the desert."

She heard sirens in the distance, and then red lights streaked down the base's main drag, between her and the lights around the experimental ramp. There were always sirens. Baxter used to roll over and mumble something about the AP's playing cops and robbers, then sink back into sleep. She listened as the sirens grew dim, then gradually increased in volume. *Must be turning into the area.* She smiled and shook her head. *An area. I don't call it a neighborhood, or even a development, anymore. An area.* She felt an ash brush her knuckles as it fell from the cigarette to the carpet. "Damn!" She stooped down to make certain that she had not ignited the cheap pile, then held up her head as she heard the sirens grow very loud, then die amidst a squeal of brakes. Immediately a loud pounding came from her door.

She looked around the dark bedroom, found her robe thrown over a chair, then began putting it on. "Mrs. Baxter! Mrs. Baxter, are you in there?"

She tied the sash with trembling fingers. "Just a minute!" She ran into the living room, then to the front door. Unlocking the door, she pulled it open. In the street before her house was a blue staff car flanked fore and aft by AP jeeps, red lights still flashing. She turned on the outside light and a greying Air Force officer, accompanied by an AP, removed his hat.

"Mrs. Baxter. I am the base commander, General Stayer. I must ask you to come with me."

"I . . . General, is this about my husband? Is it?"

The officer looked down. "I'm sorry. I don't know. Please hurry. We haven't much time."

Deb turned from the door, opened the hall closet and pulled out a raincoat. As she put it on, she found the first thing handy, and slipped Baxter's rubber galoshes over her bare feet. Moments later, she sat by the general in the back of the blue staff car as the procession screamed its way toward the field.

The car stood silently on the edge of the field, the dim blue taxiing lights diffused by the droplets on the windows, illuminating Deb's face with a cold glow. She looked across the back seat

through the windshield, but could see nothing but rain. Pulling the raincoat around her, she shivered.

"I'm sorry, Mrs. Baxter." The General turned to the driver. "Bill?"

"Yessir?"

"Turn on the car and let's have some heat."

"Yessir." The driver hit the ignition, the motor caught, and in moments warm air blew against Deb's legs. She turned toward Stayer.

"Thank you. I didn't realize how cold I was."

Stayer nodded, then reached for a microphone attached to the back seat. He keyed the mike. "Tower, this is Stayer. Has GCA got 'em yet?"

"Affirmative, General. Ground con—"

Stayer switched the frequency indicator next to the mike hanger, then keyed the mike. "GCA, this is Stayer. You have an ETA yet?"

"This is GCA. Yes, General. They should be over the field in about a minute, although with this visibility you probably won't be able to see them until they land. The other ship didn't use lights."

"Stayer out." The General hung up the mike, looked at Deb, then turned back to the driver. "Bill, hit the wipers."

"Yessir." The car's electric wipers whined and thumped back and forth, but the field before them, as well as the sky above, remained empty.

Stayer leaned back, keeping his eyes on the deserted runway. "This is the first contact of any kind that we've had with them for three weeks, Mrs. Baxter. I know how difficult this is, but . . . they specifically asked to meet with you. We tried to ask, but they ended the transmission before we could ask about your husband."

Deb nodded, then turned to face Stayer. "I'll do whatever I can. . . ." The entire field grew bright with a blinding, yellow-white glare. Deb put her hands over her eyes, then peered through her fingers. The driver was leaning forward, over the steering wheel, looking up through the windshield. "Jesus!" The driver craned his neck further, trying to get a vertical look. "Jesus, General, the size of it!"

Stayer, his head pressed against the rear window, simply nodded. Deb held her breath as a glittering shape filled the landing field before her. She was startled to realize that the only sound

she heard was the car's motor and the patter of the rain on the roof. Without thinking, she reached out a hand and grasped Stayer's forearm.

The area beneath the ship grew bright as it came within a few meters of the ground. Redlight joined the white as the belly opened, and a small, black craft was gently lowered to the runway. "It's the Python, General. And there's something else. Looks like two boxes."

Somewhere on the ship, a blue panel illuminated. The General took a breath, leaned forward and tapped the driver on the shoulder. "That's the signal, Bill. Get going."

Deb saw the driver looking at the controls of the staff car as though it was the first time he had ever seen them. "Damn!" He put the car in gear, the car jumped forward, then died. "I'm sorry, sir . . . I . . ."

"Take it easy, Bill. Just start it up, and take it easy."

"Yessir." The car started, then began approaching the ship. Deb's hand dropped from her eyes as she stared at the vessel, growing larger just at the moment she would have sworn it could grow no larger. The car stopped. Deb watched as an illuminated ramp extended from under the blue panel on the ship, and touched the ground. A moment later, a creature with massive legs for walking, smaller clawed legs held in front, and a thick tail behind, walked down the ramp and took up a position next to it.

"Mrs. Baxter?"

Deb turned toward Stayer, realizing she still held his arm. "What . . . what do I do?"

Stayer nodded at the creature. "Go over to . . . that. It'll tell you what to do. Good luck."

Deb opened the door, stepped out, and stood facing the ship. She could tell it was still raining, but none fell around the vessel. Leaving the door open, she walked toward the ramp, keeping her eyes on the creature. When she was ten feet from it, she stopped. "Well?"

The creature looked down at her. "You are the mate of Captain-carlbaxter?"

"Yes." She looked up the ramp into the ship, and at the top she saw a familiar face. "Baxter!" She ran past the creature, onto the ramp, and then reached the top. Tears streamed down her face as she looked at him, then ran to him and held him tightly.

"Easy, Deb." He kissed her, then held his cheek tight against hers.

She pushed back and held him at arm's length. "Baxter." She sniffed, then laughed. "That's some dynamite entrance you've got there, Baxter!"

Baxter smiled. "Wait until you see the rest of my act." He looked from Deb's wet hair, to his old raincoat, then to his old rubber galoshes. He looked back at her face and shook his head. "That's my Deb. All class. Why didn't you dress up? You're going to meet some important people."

"Oh, you jerk!" She embraced him again, then withdrew her arms as she heard a rasping sound behind her.

Baxter nodded in the direction of the open ramp door, where the creature Deb had seen was now standing. "Deb, I would like you to meet my friend, Deayl. If you would be friends with him, he would be called Illya."

Deb nodded at Deayl. "My name is Deb."

The creature nodded back. "You must call me Illya, then."

Baxter bent down, picked a helmet up from the deck, and turned to Deayl. "Illya, there's something I have to do. Would you keep Deb company for a few minutes?"

Deb frowned. "Baxter!"

He kissed her, then turned and walked down the ramp. Both she and Illya stood at the head of the ramp as Baxter went down, walked to the edge of the concrete runway, and knelt down. She turned to Deayl. "What is he doing?"

"Something that he wishes to do." He turned his head down toward Deb. "I asked Baxter if I could explain to you what has happened, and he consented." Deayl looked back at the human kneeling on the edge of the runway. "I tried to kill Baxter." Deb looked at the creature's clawed hands, then to the coal black eyes. "I hurt him very badly. This was to make you humans angry, and make impossible a settlement between us." Deayl nodded toward Baxter. "Our medicine saved him, then he saved me. I was to be tried by the council for my act, and Baxter interceded. What was said is not important, but he showed us something we had never seen before." Deayl looked back at Deb. "When we see the right, that is what we accept and follow. But the right says Baxter should have demanded my death. Instead, he pleaded for me. He understood why I had acted the way I did. He . . . showed mercy. You hue-muns are everything evil that we had feared becoming, but you are also greater than we could hope to be. Because of this, and because of the things the knowing ones found, our ships will leave. Earth is yours for as long as you can keep it."

Deb looked down the ramp and saw Baxter at the bottom. In his arms he carried his helmet, and as he came close to the door, she saw that the helmet was filled to the brim with mud. He stopped, held it out toward Deayl, and smiled as the Nitolan took it and bowed. "A home for you, Baxter."

"A home for you, Ilyia."

Deayl stood up, turned and went through an open iris. It blinked shut behind him. Baxter took Deb's arm and steered her down the ramp. When they reached the runway, the ramp retracted, the ship became dark, then it lifted quietly away from the field. Deb felt the rain on her cheek as she followed Baxter to where the Python stood on the runway next to the two cubical containers. General Stayer got out of his car and stopped next to them.

Baxter patted the nose of the Python and turned toward the General. "There you are, General. I'm returning your property, and I even saved you some fuel."

Stayer placed a hand on Baxter's shoulder. "I'm glad to see you, Baxter. You'll never know how glad."

"The feeling is mutual, General." Baxter looked up as he saw a stampede of siren-screaming, light-flashing vehicles moving to ward their location from the tower area. "I guess that'll be all the brass." He turned toward Stayer. "General, I have two favors to ask."

"Shoot."

Baxter went to one of the containers. "General, this is the information the Nitolans pulled out of our computers. It's been put together with their information and processed in ways I don't pretend to understand. It shows, day by day, the human race lasting another hundred and twenty years at the outside. Their predictions are accurate, which is why they left. What they saw told them that they could come back in a few hundred years and pick up where they left off—that humanity will have eliminated itself by then." Baxter nodded, then held Deb around the shoulders. "But, Medp told me that this particular prediction of theirs has one very large, unpredictable variable. That's us: humanity. If I were you, I'd have that container moved to wherever it was the Nitolans linked into those computers, then get to work."

Stayer nodded. "And the other favor?"

"Before all the brass shows up, I'd like to borrow your car and driver. I want to go home."

"Baxter, there are briefings, the Secretary . . ."

"General, I want to go home."

Stayer motioned at his car, it started up, and began rolling in their direction. The car's headlights illuminated the Python and the two containers. "One more thing, Baxter."

"Yessir?"

"What's in the other container?"

Baxter pulled on Deb's arm, stopped next to the car-sized cube, and pressed a panel set into the side of the container. It parted into two sections and swung open, exposing two wing-backed chairs, claw-on-ball feet, yellow and orange floral pattern. "I'd like these sent to my house."

Deb looked at them, then began laughing. "Oh . . . oh, Baxter . . . they're *horrible*!"

Stayer shook Baxter's arm. "Get going, Captain. And expect an early call. You have quite a selling job to do."

"Yessir. Thank you, sir."

The two entered the rear door held by the driver, and after shutting it, the driver ran around the front of the car and entered. In moments, the car moved off. Stayer felt the rain, hunched his shoulders and walked to the container with the chairs. As waves of vehicles pulled up, lighting the area with their headlights, the General took a last look, then pressed the container's panel. The cube closed with a snap. He nodded. "She's right. They are horrible." Shaking his head, General Stayer turned to greet the brass.

Lothas closed his fingers over the handful of dirt, then looked up at the image of receding Nitola in the monitor. He held the closed hand toward the monitor and turned toward Medp. "In suspension, it will be nothing to us. Perhaps a few planetary cycles, then we shall go home."

Medp studied the monitor. "Perhaps not."

Lothas nodded. "I hope you are right, Medp. They are special creatures, aren't they?"

"Indeed. It will take me many star cycles to absorb the information on them that I have acquired."

Lothas turned back toward the monitor. "Have you found an answer to the humor ritual?"

Medp gave an involuntary snort, then shook his head. "Perhaps there is no answer." He giggled.

"You seem to have discovered the cause of the reaction. Please explain."

Medp nodded, then looked up at the overhead. "Very well. Do

you know of mice?"

Lothas nodded. "The small rodent."

"Yes." Medp giggled again. "And the mythical being of Santa Claus?"

Lothas leaned against his backrest, half-closed his large, dark eyes, and studied the knowing one. "Yes. You explained that in your report on hue-mun beliefs. Explain this behavior."

Medp held out his hands. "Lothas, why are a little grey mouse and Santa Claus similar?" Medp closed his eyes, shook, and gasped for breath.

"Are you well?"

Medp waved a hand. "Yes, yes. Answer the question."

Lothas thought a moment, then shook his head. "It escapes me, knowing one. Why are a little grey mouse and Santa Claus similar?"

Medp reached out a hand and grasped the back of Lothas's chair, apparently to keep from falling to the deck. "You see, Lothas . . . they both have long white beards . . ." tears began streaming from the knowing one's eyes, ". . . *except for the mouse!*"

The control center rocked with the sounds of Medp's laughter as the knowing one slapped Lothas's back, then staggered through an open iris, leaving Lothas alone with only a puzzled expression for company. Lothas shook his head. "Truly, there is much to learn." He reached out a clawed finger to press the panel for the voice log. His finger stopped short of the panel, he closed his eyes and nodded. Then the dinosaur laughed.

HOW TRUE

A magazine sometimes runs thrillers
On time-traveling grandfather killers,
But with granddad destroyed,
There is often a void,
And limericks do make good fillers.

—Henry Clark

LETTERS

Dear Gentlemen,

Ordinarily my sales resistance is very good, but after being hounded to death by the both of you issue after issue to "send for a copy of our requirement sheet and format information," I feel sufficiently bludgeoned to write to you and ask for it. I have never written a science-fiction story, and there is a good chance that I never will, though I "intend" just as compulsively as I read.

I don't like to ask for something that I probably won't use, but since you insist so vehemently (fourteen times so far in the March issue and still counting), and since you probably have about a googol of them stacked in a closet somewhere, and since it's my stamp and envelope anyway, I'll take one. At least now I can feel that it is someone else you are trying to get to take one, and not me personally. I'll be able to sleep without dreaming of the Good Doctor frantically chasing me around the planet, waving a piece of paper that only fits in a 9-1/2" envelope.

By the way, if you print this letter, it will be my first published piece of fiction anywhere. Of course, then I would be guilt-ridden about writing it before having your instructions. Perhaps I should actually write a story to expiate my guilt.

Yours truly,

David E. Bushard
River Falls WI

Go ahead! We promise to read it!

-Isaac Asimov

Dear Mr. Scithers,

After discovering the first issue of IA'sfm, I accidentally missed the next several issues. I do not recall seeing anything in your other issues with information on how to procure back issues, and even though one of the letters you printed in your May-June issue ('78) specifically asked about how to get a hold of the first issue, you never answered the question. Aside from the fact that I enjoy every issue of your mag I can get my hands on, this is one of the few really good publications that I'll ever be able to acquire an entire set of. I'm sure there are others with the same question, so please let us all know one way or the other.

Inquisitively yours,

Jonathan D. Schmid
1261 NE 27 Ave.
Pompano Beach, Fla. 33062

Good point. We will try to do something about this.

—Isaac Asimov

In fact, we have done something about this. See our ad on page 48 for details on how to order back issues.

—Shawna McCarthy

Dear Mr. Scithers;

I have been reading your magazine (or does Dr. Asimov consider it his magazine alone?) since the very first issue. For the most part, I have enjoyed it, although I have some objection to what seems to me to be an overdependance on "one-idea" or even "one-joke" stories. (The late James Blish called them "rabbit-punch" stories.)

This aside, I feel that *IA'sfm* is a great and valuable addition to the SF magazine field. Your encouraging of new writers is laudable and necessary, since the Big Names in SF don't seem to be appearing in the magazines anymore. This policy has already borne fruit with Ted Reynolds and Barry Longyear. I hope that Mr. Longyear is not imaginatively confined to writing stories about the planet Momus. As much as I enjoy these stories, I would like to see him use different settings and ideas in the future.

I am enclosing a self-addressed envelope. Please send me your story needs and requirements. Thank you.

Sincerely,

Frederick P. Allen
Arlington MA

It is my magazine only in that it is called by my name. In actual fact, it belongs to Joel, George, Shawna, and me.

—Isaac Asimov

Dear Doctor Asimov,

I must admit that your delectable face leering out at me from issue #1 almost caused me to drop my SF paperbacks right there in the book store. Being very familiar with your work from (dare I say?) "King of SF" to linty limericks, I clutched the publication to my ample bosom and paid the cringing salesclerk before bolting

from the store. Since then it has been regular revelry at my house with each new issue. Fie! on the husband who wants a measly dinner or the child who begs for coherent words from Mother on the day *IA'sfm* appears.

All issues have been bell-ringers but so far the best story for drooling over has been "Heal the Sick, Raise the Dead" by Jesse Peel (Mar-Apr. '78). Extra salivation also for "Someone Else's House" by Lee Chisholm (Mar '79). More, more. More book reviews, puzzles, limericks, and Barry Longyear's planet Momus.

Please ignore the screams of a neglected family and send me your Instructions on Format and Description of Needs.

Your Big Fan,

Pamela A. Smith
Ludington MI

Fear not! Your family is being neglected in a Good Cause.

-Isaac Asimov

Dear Dr. Asimov,

I have just read my third issue of *IA'sfm*, and thought that you should know that you have acquired a new fan and continuing subscriber.

In truth, I must confess that the reason I subscribed to your magazine was not because of any great fervor for science fiction literature. I was unable to refuse an earnest student selling magazine subscriptions. Since the subscription price for six months of *IA'sfm* was probably the cheapest of those offered, I was able to help my young friend with little injury to my pocketbook. This is fortunately one time when it paid to be penurious.

Because of the recent media celebration of Dr. Einstein's 100th birthday anniversary, I have developed a renewed interest in science and science fiction. I have managed to read (between doing the wash and changing diapers) two-thirds of your *Trilogy*, and my first three issues of your magazine.

Although not every story has been my "cup of tea," I've enjoyed the variety of style and story length. Of course, the editorials and letters are delightful, as are the puns and the mental feats of super-student Azik Isomorph.

The only problem I've noticed involved the April 1979 issue. There were at least seven pages which were printed in a manner that made me feel as if I were either cross-eyed or drunk. Since I've never been the former, and only infrequently the latter, I conclude that

your printer had a bad day. Please don't let it happen too often; it's neither good for my eyes nor for the stories.

I truly enjoy *IA'sfm*, and will extend my subscription past the original six months.

Sincerely,

Sharon Richards
Hays KS

P.S. I've just ordered the first volume of your autobiography, Dr. Asimov. If it's as good as your magazine, I'm sure I won't be disappointed.

People with kind hearts who can't resist poor students peddling subscriptions deserve to be granted happiness.

—Isaac Asimov

Dear Dr. Asimov,

The April 1979 issue of your magazine was so great that I just had to write. Although I ravenously read each page of every single *IA'sfm*, usually I find an article here, or a story there that doesn't set well with me. Not so with this issue; every piece was a winner.

My favorites were "Heat Wave" and "The Napoli Express." This month's horrid pun was extra-ripe, and after a three-month dry spell I finally figured out Mr. Gardner's puzzle (two out of three parts counts as a pass in my book).

I was glad to see the article "On Tabletop Universes." I'm an avid Dungeoneer, but a good many people still look at me strangely when I try to explain just what that is. More articles like this one will surely bring over scores of converts.

One last note, I recently purchased Part One of your Autobiography (in spite of the heart-stopping cover price), and am enjoying it immensely. My only complaint is the large legend "ISAAC ASIMOV 1920-1954" on this cover. This makes it appear as though you passed on at the tender age of thirty-four. (And then, twenty-five years later, wrote a book?)

Sincerely,

David R. Gerhardt
31560 Concord 12-E
Madison Hts, MI 48071

If you were disturbed by that apparent death-date, you should have

heard Janet. She hadn't even met me in 1954 and she felt very deprived.

—Isaac Asimov

Dear George,

I don't know what it takes to get into your letters to the editor column. I've had an easier time publishing stories! At any rate, I hope this one makes it because the letters are my favorite part (aside from the occasional piece of mine that creeps between the pages). Publish more letters, and urge your letter writers to rip loose and tell all. When they like a story, I would like to know *why* they like it, in detail. When they don't like a piece (gasp, choke!), in detail, *why* don't they like it? I think that we in the SF trade are fortunate to have a multitude of this form of literary criticism (the only valid form as far as I am concerned) and I would like to see a lot more of it.

Dizzit

Barry B. Longyear
One Wilton Road
Farmington ME 04938

I wish to disassociate myself from Barry's letter. Anyone who doesn't like one of my stories is permitted to keep it secret for all of me.

—Isaac Asimov

Dear Dr. Asimov:

I have just finished the March issue of your magazine and I felt that I should write and tell you that it was an excellent one, particularly "Mars Masked."

I do though have a bone to pick with Mr. Lazarus and Mr. Schweitzer. I agree with them that most of the good published fiction is above and beyond what John Q. is worried about at the moment; however I have also noticed that a lot of lesser quality fiction published deals with immediate concerns of the public.

For example; when the anti-war protests were reaching a peak in the late sixties, a lot of the fiction then published had plots that boiled down to "Well, the hippies have taken over the world. Let's leave."

Or after Watergate, a lot of stories dealt with corruption in high places.

I hasten to add that stories dealing with these problems were

written before similar ones surfaced in the real world; it is simply that most stories published at any given time deal with present concerns of the public rather than future ones.

Sincerely,

Daniel Safford, Jr.
Waverly NY

I agree with you. I used to call it "tomorrow fiction" and warned it would be outdated day after tomorrow.

-Isaac Asimov

Dear Mr. Scithers and Dr. Asimov:

Generally I begin a new issue of IA's SF 'zine with the Editorial and then move to the Letters before settling into the stories. No comment yet available on story content of the April '79 issue because I've been sidetracked by the Letters Section.

My eye was caught by one letter voicing a woman's comments about being tired of seeing scantily dressed women, in reference to the Nov/Dec issue's cover, and the Good Doctor's reply that he enjoys scantily dressed young women (something in the hormones).

Well! Really! The SF audience includes women among its numbers, with myself being one. Scantily clad women never did a thing for my hormones. How about more scantily clad young men on the covers??? I wouldn't mind seeing some nice masculine physiques.

Yes! How about equal time (exposure even) for scantily clad persons?!

In a humorous vein,

Gwen Lubey
Oneonta NY

Well, I suppose we can try but it goes against the grain.

-Isaac Asimov

Dear Mr. Scithers:

I have wanted for some time to write and say what a good magazine you are putting out. So, finally, I have taken this time to do so.

Your policy of publishing material from new writers is also a welcomed one. Everyone has to have some place to start and to gain experience. I have a couple of ideas in mind and will submit something myself later.

I wanted to point out that your company has gone out of its way to be courteous and nice to me—as a subscriber. I am in prison—sometimes the mail gets sidetracked. Twice I have missed issues of your magazine, but upon writing Box 1855, I have been sent the missing copies in direct mailing, once by first class! I really appreciate the extra effort this took. Such gestures surely cause you to keep your subscribers and probably will get you some new ones as I've told several persons of your courtesy. I was not charged for these two extra copies, but I would surely have paid some extra to not miss them.

Another thing I wanted to point out to you was about the address labels. I've seen some remarks in the letter section about these, and once you even used a plain wrap-around cover sheet, but are now back to pasting labels directly on the front cover. This is annoying, in a way, and could be solved somehow. My suggestion is that you use the labels that peel off without taking part of the cover with it. Some may, admittedly, come off through handling in the mail, but surely not many. A second suggestion is to put them on the back cover—and make the back cover something not so necessary, so whatever the label might cover (or leave a spot just for labels) will not matter.

The cutaway or tear-away cover portions or pages in your magazine are not good ideas—at least to me. If others as well as I want to save a collection of magazines, the cutaways are not going to be used anyway. If you wish to use such portions, you should insert a whole page precut for taking out—and even then one can tell something was removed from the original magazine. Just a thought.

I am sending a carbon copy of this letter to Box 1855—so those there may take note of the first portion of this letter and know your efforts are appreciated and that I have done the best I can to show my approval to the editor!

I do think your issues should carry more true-to-the-story illustrations, and the covers as well. The covers should be attractive, but if they don't compare with the story in true form—something is lost. Sincerely yours,

Dee D. Atkinson
An Avid Science Fiction Fan
Raleigh NC

It isn't always possible for a corporation to be human. There are difficulties in duration of time and extent of capacity. But we try, we try.

—Isaac Asimov

Dear Mr. Scithers:

I recently recieved the March 1979 issue of *IA'sfm* and issue #2 of *ASFAM*, and was (once again, as I am every month) both pleased and amazed. What I found amazing was the unabashed *positiveness* of the magazines, the flat-out *good feelings* they generated. I have been reading SF for about thirteen years (I was twelve when I discovered the likes of Leigh Brackett, Eric Frank Russell and the Good Doctor, among others) but never before did I feel so at home, so *comfortable* with an SF magazine as I find I am with yours. No, wait, I take that back; once I bought an ancient (ancient for *me*) "Planet Stories" that had a Ray Bradbury story in it, and I got a taste of what Dr. Asimov's magazines possess. Just a taste, mind you, but enough to see what the (then) current SF magazines were lacking.

The two magazines you edit are *good things*; they are positive, informative, constructive, witty, serious, diverse (need I continue?). Congratulations; I believe you have the stuffed-shirts on the run. Please keep it up.

Illustration note: you are still printing floating heads in space, and Freff's technique remains excessive, but the overall quality of the illustrations is up 100%. The works of Karl Kofoed and Roy G. Krenkel (*ASFAM* #2) were excellent.

Sincerely,

Keith Minnion, ENS, USNR
USS SEATTLE (AOE-3)
FPO New York, NY 09501

I'm not sure what you mean by positive, but if what you mean is that Joel, George, and I are clearly enjoying ourselves, you're right.

—Isaac Asimov

Mr. Scithers and Dr. Asimov,

As one who enjoys science fiction, I'd like to thank you for such an excellent magazine. The Good Doctor's editorials (the first thing I read), are, needless to say, always interesting and fun. The stories are good-to-excellent, the articles well done, and the puzzles, poems, limericks, and, ah yes, even the puns round it off, making every turn of the page a new adventure.

You probably hear such things quite often, so I won't carry the praises any further (though it would be easy to do so). I would like to mention, though, that the little blurbs you do on each author are

really great. Not only is it nice to see what a wide variety of people write science fiction, but the number of first sales is very encouraging to someone who wants to get started but needs a little motivation. With that thought I've enclosed a stamped self-addressed envelope for a copy of your guidelines and story needs. Whether or not I can make some contribution, it should be a lot of fun trying.

Keep up the good work.

Sincerely,

Wes Brzozowski
Binghamton NY

The blurbs are George's department, and I agree with you that they are informative and interesting in themselves.

—Isaac Asimov

Dear Mr. Scithers and Dr. Asimov,

My sincere congratulations on your magazine that has been consistently both entertaining and thoroughly enjoyable from cover to cover.

The May '79 issue has prompted me to write to you regarding a few subjects.

First, let me say that I endorse your decision to include the story title along with cover-art credits where it applies. This month, however, it appeared to be unnecessary. When my copy of the issue arrived—a bit ragged, I must add—the mailing label covered the story titles and authors shown on the cover. Not knowing the stories contained within, it came to me that the illustration on the cover would be perfect for a story of Momus by Barry B. Longyear. I was delighted to find that I was correct. The art work is extremely good and quite appropriate.

I was a bit surprised at the change of the magazine title to "*Isaac Asimov's*." It appears that the printers missed a few words this month.

For the Good Doctor: You stated, in response to a letter, that it makes you nervous to have people place absolute reliance on your name as a measure of quality. I have been reading your writings—science fiction and non-fiction—for more years than either you or I care to have printed. During those years I have diligently searched for each and every book, story, essay, and article. I can honestly and gratefully state that I have never been disappointed in anything that I have read of yours. Therefore with a record such

as that and for what ever reason, I feel confident in placing absolute reliance on anything carrying your name.

My heartfelt thanks for the years of pleasure and I sincerely hope for continued success with *IA'sfm*.

Please send your requirements for written work. SASE enclosed.
Zealously yours,

Arnold Vander Woude
Malden MA

You are very kind, but I am only human and you will have to allow me the possibility of disappointing you now and then.

—Isaac Asimov

Dear Dr. Asimov,

I am a devout fan of science fiction and your magazine, but how could you? I am also sixteen and a struggling high school student with plans for a fruitful career. Now that you have gone monthly, I find myself procrastinating severely on my homework in order to read the fictional treasures which seem to be arriving every few days. (I am not a speed reader.) If my grades drop, I may be doomed to spend the remainder of my life in a hovel somewhere.

Can you please do *something* to solve my dilemma?

Sincerely,

Elaine Shizkowski
Hummelstown PA

PS: I am putting off an English assignment as I write this letter. That assignment is a speech; the topic, Isaac Asimov.

Look upon this as a way of developing your strength of character. Determine to become a speed reader!

—Isaac Asimov

Dear Dr. Asimov and Mr. Scithers;

In the March 1979 issue of *IA'sfm* you have done something I consider extremely offensive, something very unfair to many of your readers: You have published part of a serial without labeling it as such. Frederik Pohl's "Mars Masked" was *not* a story complete unto itself which will later be combined with other stories to make a novel, it was just a segment of a novel. If, as I suspect, we see the

remaining segments in *IA'sfm* in the near future, then we have been cheated; if we *don't* see the remaining segments, we have been cheated even more.

Had I been warned that the Pohl piece was (as it obviously is) from a forthcoming novel, I would have waited and read the novel instead. I have found that magazine serializations often omit parts of the eventual novel, thereby forcing the person who has read the serial either to miss part of the author's words or to read the same plot twice. I know other SF fans who refuse to read serials for the same reason. Among fans who *do* read serials, many prefer to save issues until they have all the installments before beginning reading.

In any case, a great many of your readers have been cheated by your refusal to label the Pohl piece as part of a serial. At the very least you could have used a euphemism such as "this story is one of three (or whatever) that will form Mr. Pohl's forthcoming novel."

After I began composing this letter the April issue of *IA'sfm* appeared, containing no further Pohl "story." I do not feel that that invalidates any of my comments. I believe that as science-fiction fans yourselves, you know better, and owe us an apology.

Sincerely,

Gary McDole
Box 956
Eldridge CA 95431

We don't intend to run serials, but we also hate to lose out on a piece of good science fiction if we can possibly avoid it. Good stuff isn't that common. If we bend the rules occasionally it's in what we think is a good cause.

-Isaac Asimov

Dear Mr. Scithers:

Could you please lay off on the sex? In your writers' guidelines you said (or implied) that sex, except as a necessary part of life, was to be excluded from *IA'sfm*. Well, twenty-second century homosexuality, bed-hopping main characters, and mermaid prostitutes are *not* necessary parts of life. I had hoped (and still do!) to make *IA'sfm* a main part of my literary diet—you've printed two really good issues out of the four I've been able to get—but if you keep up the kind of work you did in May '79, I won't.

Would you see what you can do about it?

Hopefully yours,

Will Briggs

Changes in sexual attitudes with time is indeed a necessary part of life. Suppose a writer in 1880 wrote a story set in 1980 and had his 1980-women wear bikinis on the beach. That would be amazing prescience but surely there would be loud protests over his "unnecessary" pornography.

—Isaac Asimov

Dear Mr. Scithers and Dr. Asimov:

I have been reading *IA'sfm* since issue number one and enjoy it immensely. I have two comments about the April issue. First, "Heat Wave" by D. C. Poyer was one of the most sensitive and exciting treatments of an encounter between human and non-human intelligence that I have ever read. Thanks to you and the author for giving it to us. Second, a brief response to a letter by Donald Robertson. I strongly disagree with his second and third paragraphs. Please *do* continue to include short, short stories. They are easy to finish on my bus ride to work. Please don't add film reviews, art reviews, and more art. Of course, more writing by Dr. Asimov, either in editorials or elsewhere, would be welcome.

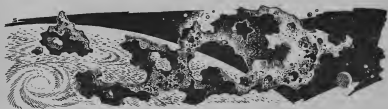
My office mate, with whom I share each issue (I get it first, of course), and I can only say, keep *IA'sfm* coming!

Thanks!

Bob Johnson
Washington DC

There'll never be total agreement on every point. We'll have to use editorial judgement to make decisions. And tell your office mate to buy his own copy. He's shared enough.

—Isaac Asimov



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